

Ministry of Water Resources and Irrigation
US Agency for International Development
Agricultural Policy Reform Program
Environmental Policy and Institutional Strengthening Indefinite Quantity Contract

**APRP—Water Policy Activity
Contract PCE-1-00-96-00002-00
Task Order 807**



***REVISED LAW 12 OF 1984 ON WATER RESOURCES
AND ITS EXECUTIVE REGULATION***

Report No. 48
Main Document

December 2001

Water Policy Program

International Resources Group

Winrock International

Nile Consultants

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AND ITS EXECUTIVE REGULATION***

PREPARED BY:

*Eng. Sarwat Fahmy
Dr. Ibrahim Elassiouti
Eng. Nasser Ezzat
Eng. Ahmed Maher
Dr. Mohamed Badran*

December 2001

For

United States Agency for International Development/Egypt

Environmental Policy and Institutional Strengthening Indefinite Quantity Contract (EPIQ)

Partners: International Resources Group, Winrock International,
and Harvard Institute for International Development

Subcontractors: PADCO; Management Systems International; and Development Alternatives, Inc.

Collaborating Institutions: Center for Naval Analysis Corporation; Conservation International; KNB Engineering and
Applied Sciences, Inc.; Keller-Bliesner Engineering; Resource Management International, Inc.;
Tellus Institute; Urban Institute; and World Resources Institute

Acknowledgments

The WPAU/EPIQ Revision of Law 12/1984 team prepared this report. Members of the team include Eng. Sarwat Fahmy, Eng. Nasser Ezzat, Dr. Ibrahim Elassiouti, Eng. Ahmed Maher and Dr. Mohamed Badran, Eng. Amira El-Diasty and Eng. Moemen El-Sharkawi. The contributions of the Law 12 MWRI Working Group, Eng. Ali Morsi, Eng. Mohamed Fathi, Eng. Yehia Abdel-Aziz, Eng. Abdel Moneim Shalaby, Eng. Maher Khodery, Dr. Fatma Attia, Dr. Dia El-Qousy and Eng. Ramsis Bakhoum are hereby acknowledged.

The EPIQ Water Policy Reform Program (WPRP) is a joint activity of the Ministry of Water Resources and Irrigation and the US Agency for International Development. It is carried out under the auspices of the Agricultural Policy Reform Program. Program implementation is the responsibility of Winrock International, International Resources Group and Nile Consultants.

Special thanks to Eng. Gamil Mahmoud, Chairman of the MWRI Project Steering Committee and the MWRI Water Policy Advisory Unit; Dr. Wadie Fahim Mankarious, USAID Project Technical Officer; and Eng. Andrew Tczap, EPIQ/WPRP Team Leader, for their leadership and support.

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Executive Summary

Introduction

Law 12/1984 and its supplementary Law 213/1994 define the use and management of public and private sector irrigation and drainage system structures; including main canals, feeders, and drains. They also provide legal direction for the use and maintenance of public and private canals, and specify arrangements for cost recovery in irrigation and drainage works. Law 12 regulates the use of groundwater and agricultural drainage water and legislates other factors such as protection against flooding, navigation and coastal protection. Penalties for violation of the laws and by-laws are also specified.

The supplementary Law 213 provides the Ministry of Water Resources and Irrigation (MWRI) with the legal foundation for involving landowners, at the mesqa and farm levels in irrigation system improvements. It also established a fund to finance projects related to the development and maintenance of improved mesqas and to promote water use awareness.

In light of prevailing and projected water supplies, demographic, and ecological conditions in Egypt, the laws are in serious need of reconsideration. Law 12 and its executive regulation have been revised to take into account current Government of Egypt (GOE) policies on liberalized crop choice and horizontal expansion of new lands. Implementation of this policy benchmark will significantly improve the ability of MWRI to maximize diminishing resources and to guide Egypt's water suppliers and water consumers into this millennium.

Scope of Work

Benchmark C.5 Phase II of APRP Tranche IV (1/1/2001 – 31/12/2001) states that “The GOE (MWRI) will prepare revisions to Law 12/1984 on irrigation and drainage and its supplementary laws, to improve effective water resources management.” This report has been prepared in support of this benchmark. Given the major changes in the visions, policies and water resources situation in Egypt, most notably the increasing scarcity of water, the anticipated diversion of Nile water to new lands, and the importance of stakeholder participation, Law 12 was carefully reviewed and revised in Phase I of this benchmark.

The objective of this benchmark Phase II focused on the development of executive regulation to go with the modified Law 12 involving all levels of stakeholders.

Need for Reviewing Law 12 and its Executive Regulation

Law 12/1984 was issued to provide a legal basis for irrigation and drainage issues based on the visions of the 1980's. Given the major changes in vision and policies, the increasing scarcity of water in Egypt, the anticipated diversion of the Nile water to new lands, and the increased importance of stakeholder participation, the law and its executive regulation need to be carefully reviewed and revised.

Legislation Governing Water Resources

Table (1) provides an overview of water laws and water-related laws dealing with water resources and their management. Some of these laws need to be reviewed as some of their articles overlap or conflict with the modified Law 12 on water resources.

Table 1 Water Laws and Water-Related Laws

Laws dealing specifically with water			
Law/Year	Subject	Synopsis	Implementing Agency
Law 12/1984	Irrigation and drainage	Regulates the use of water, includes full recovery of sub-surface drainage cost by farmers	Ministry of Water Resources and Irrigation (MWRI)
Law 93/1962	Drainage of liquid waste	Regulates the discharge of wastewater into sewer systems and specifies standards for waste disposal to sewers and for use in irrigation.	Ministry of Housing, Utilities and New Communities.
Law 48/1982	Protection of the River Nile and Water ways	Classifies types of waterways and regulates the discharge of wastewater into these waterways.	MWRI and Ministry of Health and Population (MOHP)
Law 4/1992	Law for the Environment	Provides rules for protection of the environment. Regulates air pollution. Sets standards for industry.	Ministry of Environmental Affairs/Egyptian Environmental Affairs Agency
Law 213/1994	Legalizes WUAs on old lands	Legalizes WUAs at mesqa level and provides for recovery for capital cost for IIP.	MWRI
Law 27	Drinking water quality	Sets drinking water quality standards and regulates monitoring.	MOHP
Laws dealing with Privatization			
Law 203/1991	Public sector business law	Regulates restructuring of Public Enterprises and transfer of government agencies to Holding Companies	Ministry of Public enterprise (MPE)
Law 95/1992	Money market law	Legalizes the sale of shares to employees (Employee Share Holder Association)	MPE
Law 159/1981	Companies law	Regulates the transfer of public sector companies (under law 203) to private sector companies	MPE
Law 100/1996	Law to establish the Egyptian Electricity authority	Allows private sectors developers to invest in electrical power generation projects	MPE
Law 8/1997	Investment law	Regulates while tax exemptions, currency conversions, profits repatriation and protection against nationalization for foreign investor.	MPE
Laws dealing with Agriculture			
Law 113/1939	Land tax	Sets land tax to 14% of the (estimated annual rent of the land cultivated or not)	Ministry of Agriculture and Land Reclamation(MALR)
1939/1992	Land tax	20 laws and decrees were issued in this period with refinements, additions and exemptions	MALR
Law 96/1992	Final land tax	Sets the rental value to 22 times the prevailing land tax. It maintains the land tax at its previous level (14%) but allows for increase in land rents	MALR

Analysis and Review of Proposed Modifications in Law 12/1984 and its Executive Regulation

The current applicable laws governing the State's control of water resources and related installations are incapable of meeting the State's needs in a manner consistent with its economic plan. Therefore, it has become necessary to formulate new rules and amend current laws, including Law 12/1984 and Law 213/1994.

For this purpose, a modified law was enacted to reflect the latest developments, concepts, visions, and inputs related to water use management. The modified law was intended to achieve the following objectives:

- Highlight the concept of integrated water management for different sources, types, and uses considering the social and economic aspects.
- Develop new water resources.
- Define the responsibilities and authorities of governmental and non-governmental bodies at all central, regional, and local levels.
- Encourage water users to participate in water resource management under the supervision of MWRI officials. Private companies should be encouraged to assume this function, passing associated costs and expenses on to the end users.
- Complete the tile drainage networks so they can reach all the existing farmlands and replace the old ones.
- Expand the use of drainage water for irrigation purposes after conducting field studies to determine suitability for use in their existing condition or after mixing them with freshwater.
- Expand the use of groundwater stock for drinking and irrigation purposes.
- Improve and integrate surface irrigation systems modernizing them on the old lands.
- Continue to implement replacement and renovation projects; improve the performance of hydraulic installations erected on canals and drains and the water distribution systems; adjust water balances; and replace or renovate irrigation and drainage pumps at the end of their life span.

- Continue to conserve the use of irrigation water and apply modern irrigation systems such as sprinkling, dripping and other improved methods adopted pursuant to Law No. 12/1984 as amended.
- Benefit from rain and floodwater.
- Amend the organizational structure, job descriptions, and the ministry previous title, now called the Ministry of Water Resources and Irrigation, to reflect the new water policy philosophy.
- Toughen the penalties for the violations of the law concerning water resources and irrigation regardless of the courts' right to impose other penalties legislated by the penal code or other criminal laws.

In order to achieve the above mentioned targets, the Ministry of Water Resources and Irrigation has formulated the proposed draft law in coordination with the governmental authorities concerned with water resources and irrigation affairs, especially, the Ministry of Agriculture and Land Reclamation, the Ministry of Reconstruction, and the local councils.

Two workshops were held. The first one was conducted during Phase I with 50 stakeholders from the ministries with water – resources related management responsibilities, NGOs, water users, public personalities and universities' researchers. The second workshop was held in Alexandria from 4-6 October 2001 and was attended by 22 MWRI key position personnel (Annex D). the purpose of these workshops was to solicit comments on the proposed modifications in Law 12 and the executive regulation.

The remarks and comments made by the above mentioned bodies were taken in consideration while preparing the proposed law and the executive regulation.

The modified law containing 119 articles distributed over 10 parts can be found in the appendices A and B both in English and in Arabic. It is now re-titled to address water resources in general.

The proposed executive regulation includes 125 articles distributed over 8 parts, can be found in the appendices C and D in English and in Arabic.

The modified law was submitted to H.E. the Minister of Water Resources and Irrigation via memo from the head of the Water Policy Advisory Unit. The Minister noted his approval by handwritten note on the memo and instructed that appropriate steps should be taken. A copy of that approval, along with an English-language translation, is included in the following two pages.

The results, findings and recommendations of this benchmark were presented to the MWRI Water Policy Steering Committee at the final Tranche IV Benchmark Workshop held on Nov. 9-10, 2001. The draft version of this report and its appendices were made available to the Steering Committee members and other key officials of MWRI, USAID and other involved GOE entities. Following comprehensive discussion and deliberation, the draft report was adopted by the Steering Committee. The Steering Committee subsequently forwarded its recommendations for this benchmark to H.E., the Minister of MWRI, for approval.

علي السيد المهندس الأستاذ الدكتور الوزير

[illegible]

Memorandum

To: H.E. Minister of Water Resources and Irrigation
From: Eng. Gamil El-Saved Mahmoud. Director WPAU
Date: September 24, 2001
Subject: Revised Law 12 of 1984

I am honored to inform you that the working group of Tranche IV Benchmark on "Revision of Law 12 of 1984 on Irrigations and Drainage" has already prepared the draft of the final revision of the law with its explanatory note (please you will find it enclosed) the revision was undertaken by the working group with support from the MWRI task committee headed by the chairman of the Irrigation Department. The revised law was discussed in a workshop attended by stakeholders representing relevant ministries, NGO and farmers. Stakeholders' comments and feedback were taken in consideration in revising the law.

Also, the working group of this benchmark has prepared the executive regulation that goes with the revised law. Several meetings were held with the MWRI key personnel to put the regulation into its final form. The executive regulation will soon be ready to be presented to the Steering Committee of the Water Policy Project.

Your kind approval of the revised law is requested in order to satisfy the benchmark verification indicator which states "A draft revision of Law 12 of 1984 will be approved by MWRI by December 2001".

To Eng. Gamil Mahmoud

Final Draft of Revised Law 12/1984 is approved
MWRI Signature

(Mahmoud Abou-Zeid) September 30, 2001

1 Introduction

1.1 Overview

Water management is a critical element in Egypt's economic viability. In order to be effective and support GOE water policy reforms, water management requires a basic legal structure that provides all relevant agencies and stakeholders with guidelines and instruments for planning for new development interventions, water allocation and deliveries, and operational management and maintenance of the irrigation system. Law 12/1984 on irrigation and drainage was enacted to address these issues. This law was supplemented by law 213/1994, which formalized roles of farmer participation in water management in most categories of land.

Law 12/1984 defines the use and management of public and private sector irrigation and drainage network structures, including main canals, feeders, drains and tile drains. It also provides legal direction for the use and maintenance of public and private canals and specifies arrangements for cost-recovery in irrigation and drainage works. In addition, rules are provided for water allocation, rotations, and seasonal activities such as rice plantation, as well as rules for the construction of water intakes. The law also regulates the use of groundwater and drainage water, and regulates other factors such as protection against flooding, navigation and coastal protection, and general irrigation system protection measures and expansion in new irrigated lands. Penalties for violation of the law and its bylaws are specified. Law 12 focuses almost entirely on issues pertaining to the mandate of MWRI. It does not provide for the involvement of all stakeholders in the planning and allocation of increasingly scarce water resources.

The supplementary Law 213/1994 provides MWRI with the legal foundation for involvement of landowners at the mesqa and farm level for improving irrigation systems. It also establishes a fund to finance projects related to development and maintenance of improved mesqas in IIP areas and to promote awareness with respect to the use of water. Law 213 only provides for water user organizations above the mesqa level on new lands. Establishment of organizations on old lands above the mesqa level requires modification of the law.

This benchmark was implemented over a two-year period and was divided into two phases. Phase I focused on the analysis and review of the law modification in light of prevailing and projected water supply and demographic and ecological conditions in Egypt. Law 12 and its supplementary law 213 were reviewed taking into account the current GOE policies on liberalized crop choice and horizontal expansion to new lands and other new policy reforms. Phase II focused on preparing the final draft of the modified law in its new form to be approved by MWRI as well as working out the details of the law executive regulation.

1.2 The Need for Reviewing Law 12/1984 and its Executive Regulation

Laws 12 and its executive regulation were issued to provide a legal basis for irrigation and drainage issues based on the visions of the 1980's. Given the major changes in vision and policies, the increasing scarcity of water, the anticipated diversion of Nile water to new lands, and the increased importance of stakeholder participation, the laws need to be carefully reviewed and revised. The objectives of this benchmark focused on strengthening capability to manage water resources in an era of increasing water scarcity, including the involvement of stakeholders at all levels in the planning, management, and allocation of water resources.

Revision of the law and its executive regulation should ensure the establishment of the following:

- More efficient integrated water management at all levels of the Egyptian irrigation and drainage system.
- An updated legal code for irrigation and drainage issues to reflect current and projected practices and situations, including the role of the private sector in water management.
- Establishment of a legal basis for all levels of user organizations and water boards in all categories of land in Egypt.
- Better coordination between MWRI, other ministries, and authorities at the local level.
- Increased and more efficient communication and coordination between different sectors of MWRI for planning, implementation, and monitoring.

- Tighter controls over water quality and quantity usage.
- Increased stakeholder involvement in water allocation planning and implementation.
- Improved water delivery and usage efficiency, and more efficient drainage performance.
- Capability to better enforce laws related to water allocation, irrigation and drainage

1.3 Purpose of the Report

Benchmark C.5 Phase II of APRP Tranche IV (1/7/99-12/31/2001) states that “The GOE (MWRI) will prepare revisions to Law 12/1984 on irrigation and drainage and its supplementary laws, to improve effective water resources management.” In support of this benchmark, WPAU/EPIQ carried out the following tasks:

- Worked closely with the MWRI Working Group in the review of Law 12 and its executive regulation.
- Identified new areas and concepts related to improved water use and management, taking into account results of the irrigation management transfer, water quality and water reuse benchmarks, and current relevant issues and policies.
- Held a stakeholder workshop to review and discuss draft being developed for Law 12 executive regulation.
- Prepared the proposed provisions to executive regulation of modified Law 12/1984.

The objective of this report is to outline and discuss changes and amendments that have been considered in developing the modified law and its executive regulation. Modified Law 12 on water resources and its proposed executive regulation both in Arabic and in English are attached to the report (Appendices A, B, C and D)

1.4 Benchmark Activities

APRP Tranche IV, Benchmark C5 had two stage implementation plan: Phase I (November 1999 – December 2000) resulted in analysis and review of modifications in Law 12 of 1984

on irrigation and drainage, phase II (January – December 2001) was dedicated to the development of the revised Law 12 and its executive regulation.

Under the benchmark C5 Phase I, the following activities were conducted:

- Established MWRI revision of water resource law task committee.
- Designated of WPAU – EPIQ informal work group.
- Revised Law 12 of 1984 on Irrigation and Drainage and its supplementary Law 213.
- Held several meetings with MWRI working group to analyze and review modifications in Law 12.
- Consolidated sector input into a proposed water law revision report to be submitted to the MWRI Task Committee.
- Completed analysis and review with stakeholders' participation in review of the proposed water resources law revision report.

Phase II was a continuation of Phase I activities. Activities accomplished under Phase II included:

- Prepared the final draft of the modified law in order to be submitted to MWRI.
- Reviewed articles of the executive regulation of Law 12 and Law 213 in order to identify articles requiring amendment or revision.
- Investigated the different articles in the proposed law to find out:
 - Issues that needed to be defined.
 - Articles that needed more details.
 - Issues that required explanation or clarification.
 - Works that required licenses.
- Studied each of the ten parts of the modified law separately and prepared its corresponding executive regulation.
- Reviewed all parts of the modified law along with their executive regulation to ensure there were no conflict or repetition.
- Held several meetings with the MWRI working group to discuss draft being developed for modified Law 12 executive regulation.

- A stakeholders' workshop was conducted to solicit stakeholders feedback on the proposed new executive regulation.
- Prepared the final draft of the executive regulation both in Arabic and in English to be delivered to MWRI for approval.

1.5 Organization of the Report

Chapter 1 provides the background, reviews past benchmark activities completed during Tranche IV Phase I and summarizes the major activities that have been conducted under Phase II. Legislation governing irrigation and drainage is presented in chapter 2.

Analysis and review of proposed amendments to Law 12 and its executive regulation are presented in Chapter 3 & 4. chapter 5 discusses conclusions drawn from analysis and review of modifications in Law 12 and its executive regulation.

Finally, this Benchmark Report includes five appendices:

Appendices A and B:	Modified Law 12 in English and in Arabic.
Appendices C and D:	Proposed Executive Regulation in English and in Arabic.
Appendix E:	Stakeholders' Workshop Report.

1.6 Steering Committee Approval

The results, findings and recommendations of this benchmark were presented to the MWRI Water Policy Steering Committee at the final Tranche IV Benchmark Workshop held on Nov. 9-10, 2001. The draft version of this report and its appendices were made available to the Steering Committee members and other key officials of MWRI, USAID and other involved GOE entities. Following comprehensive discussion and deliberation, the draft report was adopted by the Steering Committee. The Steering Committee subsequently forwarded its recommendations for this benchmark to H.E., the Minister of MWRI, for approval.

2 Legislation Governing Water Resources in Egypt

2.1 Preamble

Laws are regulatory formulae governing the relations among individuals or between the state and the citizenry. They define rights and obligations under the specific circumstances in which they were enacted and enforced. Therefore, man-made laws always require evaluation and rectification over time to keep abreast with change, to fill-in a loophole, or to cope with the changing nature of human beings.

Like other legislation, irrigation and drainage laws have been exposed to amendment, abrogation or rectification. This is more so in modern times, which are rampant with continual change and breath-taking developments. The legislators, therefore, intervene from time to time to restore proper regulation or to introduce new governing rules.

This chapter sheds light on features of each law governing water resources, without venturing into the details of the provisions of each law. It also reviews the problems that impede implementation and proposes solutions.

2.2 Review of Previous Laws

Rules and regulations for canals and embankments of 1887

This was the first quasi-comprehensive legislation for irrigation and drainage. It had been promulgated in February 1894 and is seen as the primordial substance of the laws on irrigation and drainage in Egypt.

The regulations started by defining the canals, the drains and the mesqas. They obliged the beneficiaries on private mesqas to cleanse them and entitled the Ministry of Water Resources and Irrigation to perform this function at the expense of those beneficiaries who failed to do so. It stated that the maintenance of public drain is the sole responsibility of the state, whereas private drain maintenance is the responsibility of the beneficiaries.

The regulations reiterated the provisions of the decree issued in September 1887 concerning protection against floods and the responsibility of the state and landlords in maintaining the embankments heads, crossings, levees, and private structures that are integral parts of the basins.

This was indeed natural, as the end of the 19th Century and the beginning of the 20th Century had witnessed the co-existence of both basin and perennial irrigation systems. The Nile Delta was transformed to the latter system while the larger part of Upper Egypt remained under a basin irrigation system.

The regulations underscored the importance of protection of rights on the mesqas and drains. They particularly elaborated on procedures of industrial works such as heads and water pipes, and the regulation of boat passage in the Nile mainstream and main canals.

The regulations delineated actions that could damage the irrigation system, such as the erection of a barrage or the placement of water pipe or siphon, without prior permission. Delineated actions included damages to the river embankments, canals, and the drainage system.

Violators were subjected to a fine that ranged from pt. 25 to the real cost of repair, in addition to imprisonment for a period ranging from one day to 60 days. An administrative committee was empowered to pass such decisions. Its members were the irrigation inspector, the district engineer, and three village mayors appointed by the Ministry of the Interior.

In July 1909, the regulations were amended for such cases where the contravention did not require rehabilitation, in which case the fine was set at a maximum of LE 20.

Law 68 of 1953

With the exception of the decree of June 1899 concerning the maintenance works during the flood season and the decree of May 1903 concerning irrigation of the under-irrigated soils,

the above-mentioned regulations for canals and drains remained operative until Law 68/1953 concerning irrigation and drainage was enacted and implemented.

It ensured the irrigation authority full hegemony over water distribution, so as to guarantee equitable access to irrigation water. It also empowered the irrigation authority to prevent irrigation of the agricultural lands outside the set turns or to irrigate the under-irrigated lands at times other than those set by the Minister of Water Resources and Irrigation.

The law specifically dealt with the problem of slow bureaucratic action. It provided for direct communication between the applicant farmer and the irrigation inspector so as to save time and effort. It also made it incumbent upon the irrigation authority to decide on complaints within a specific period from the date of receiving the complaint. As a result, rules of equity have been established. The law had abrogated the irrigation committees and assigned their jurisdictions to the ordinary courts of law.

Law 68/1953 put special emphasis on “Private Properties Relating to Irrigation and Drainage”, by which it meant privately-owned lands situated between the river embankments, the canals banks, the public drains, and lands located 50 meters outside the river embankments and 20 meters outside the end section of public canals and drains. The law considered those lands liable to specific limitations to serve the purpose of irrigation and drainage in their surrounding areas. It provided certain compensations if and when surface soil was taken from such lands or when the outcome of dredging was discarded on them.

The law has regulated the obligatory work for maintaining the riverbanks during the flood. It entitled the Minister of Water Resources, in case the flood was extraordinarily high, to declare a state of emergency. It conferred greater powers on the engineers entrusted with oversight (supervisory) functions so as to counteract over-flooding.

This was the first law that granted irrigation engineers the power of law enforcement agents in providing the facts on irrigation and drainage contraventions.

Some provisions of Law 68/1953 were amended by Law 29/1959, which re-instituted the irrigation and drainage (administrative) committees in lieu of the ordinary courts. Law 164

was promulgated in 1957 to define the procedures to be observed before the administrative committees. It explained, among other things, the format of proving the contravention, the method of notifying the violator and the procedures of summoning him before the administrative committee for passing a judgment on the violation committee.

Pumping fees and machinery

Since the issuance of the decree of March 1881, it has been common practice for the MWRI to issue decrees specifying fees of irrigation by the privately-owned pumps used on the river stream, the canals and the mesqas. But since pump owners tended to overvalue their services, Law 20 was issued in 1953 to set the fees according to the categories defined by the Minister of Water Resources. It conferred on irrigation engineers the powers of law enforcement agents regarding violations of the provisions of that particular law; among other things, with the use of water-lifting machines, conditions and regulations for their use and the validity of licenses. It also granted the irrigation department the authority of withholding the water-lifting machines, managed in violation of the provisions of the law, without waiting for the issuance of the judgment on the contravention in question, as judicial procedures might be prolonged.

Fees of irrigation, from public pumps and artesian wells

Law 87, issued in 1942, stipulated that those fees shall be specified in a decree of the Minister of Water Resources. The philosophy behind this trend was that the lands irrigated easily should have free access to irrigation water and that a fee would be due on lands irrigated by pumped water so as to make up for operational costs. To this effect, a Ministerial Decree was issued whereby an annual fee for irrigating a unit area was set. Again, some artesian well owners overvalued the fees, and the government had to intervene by issuing Law 128/1949, which specified certain procedures for the beneficiary farmers using the privately owned artesian wells for irrigating their lands. It obliged well owners not to decline farmers access to water against the fee categories defined in the decree of the Minister of Water Resources. Irrigation engineers retained their power as law enforcement agents until Law 68/1953 was issued, including provisions for water-lifting machines, their use, licenses, and regulations.

Planting of trees on banks of public canals and drains

Law 28/1941 stipulated that owners of lands situated on the banks of public canals or drains are bound to plant trees, as defined by the Ministry of Agriculture (MOA), on the side of the bank bordering their lands. It also obliged them to maintain those trees and prohibited cutting them without prior permission from MOA, in which case the trees would be sold through public auction by MOA staff. The landlord would receive three quarters of the net price. The purpose of this Law was to promote forestation of the banks of public canals and drains and to expand the country's wood wealth.

Law 71 of 1953

Law 71 was the first Law that regulated rice planting in Egypt. It stipulated that rice planting was not permissible outside regions specified annually by the MWRI. As an exception, rice growing was permitted in Fayoum. The law stipulated that lands with access to artesian irrigation and with infrastructure for drainage might be planted with rice, provided that permission is obtained from the MWRI. Violators were subject to the a fine of LE 25-35 per feddan or fraction of a feddan, which was then equivalent to value of yield per unit area.

The MWRI noticed that court judgments withheld the penalty in many cases, thus encouraging farmers to commit violations of the law. Therefore, Law 250/1956 stipulated that it is impermissible to withhold the enforcement of the penalty.

Law 31/1961 included two major amendments:

- The Minister of Water Resources, in addition to his annual decree specifying areas where rice may be grown, may define a percentage for each region where rice may be additionally grown, provided that the percentage shall be strictly observed so as to ensure availability of water for other plantations.
- The fine for planting rice outside the region specified annually increased proportionately with the increase the rice farm gate price. It was then increased to LE 35-50 per feddan or fraction of feddan.

Law 82 of 1956

On-farm open drains were established at the expense of landlords, based on Law 35/1949. It was later deemed more appropriate by the Ministry of Water Resources to replace the network with tile drainage, so as to maintain the small landholdings. However, implementation was faced with two major impediments:

- Farmers objected to the temporary vacation of their lands for the deployment of drainage pipes.
- The Ministry was unable to access the cost of establishing the tile drainage network.

For these reasons, Law 82/1956 was promulgated. It defined the on-farm drain as “an open or tile drain”, so as to overcome the problem of cost recovery. The problem of temporary vacation of the land was overcome by an earlier law promulgated in 1954, which provided for expropriation of lands for public interest or for the introduction of certain improvements. Likewise, the on-farm drainage Law of 1956 made it obligatory for landlords to repay the cost of establishing open or tile drains.

Law 130/1967

With the expansion of irrigation and drainage networks, navigation was redefined to mean the use of water streams and in-land lakes. Internal navigation was first regulated by Law 13/1917 concerning registration of boats. Later, Law 17/1941 prohibited operation of boats on in-land waters without prior permission (license) from the Ministry of Transport, after the payment of fees and confirmation of technical standards.

The law has conferred upon the employers of the Internal Navigation Division the power of law enforcement agents. Law 75/1946 incorporated one amendment on collection of annual fees by way of administrative sequestration when need arises. Law 10/1956 abrogated Law 17/1941 and regulated internal navigation through such provisions as:

- Adding the Suez Canal to the list of inland water streams;
- using the license for entry into Egyptian sea-ports for loading and unloading;
- making licenses valid only for three years instead of five years;
- issuing a decree specifying safety conditions and determining shipment routes;
- setting a maximum inspection fee before licensing;
- abrogating administrative sequestration as a means of fee collection;

- exempting immobile floats on internal waters from the annual fees;
- multiplying the penalty of fine imprisonment for violations of Law 10/1956;
- imposing a new fine for failure to show the license upon request.

In 1958, a public establishment for internal water transport was created and was converted in 1961 into a public authority. Law 57/1962 was issued to amend some of the provisions of Law 10/1956, including transfer of jurisdiction to the General Authority for Water Transport, reduction in the validity of licenses to two years, and an exemption from loading fees for boats whose loading capacity did not exceed 10 tons. It also made it compulsory for state-owned boats to obtain navigation licenses, having been exempted in the past.

In 1957, Law 130 was issued to regulate anchorage on internal waters. It particularly stated that anchorage shall only be possible on platforms to be specified by the MWRI, in consultation with the concerned ministries. Licenses were issued by the MWRI, thus ensuring safety of water streams and protection of their bank meanders. The law had set an anchorage fee, paid to the MWRI, from which the state-owned boats were exempt. The law provided for the administrative removal of contraventions and recovery of costs by way of administrative sequestration.

Law 74/1971

This law on irrigation and drainage was issued to add novel provisions to existing laws. For example:

- The cost of establishing on-farm drains was considered as preferential as land tax.
- The MWRI informed the land tax authority about the lands covered with tile drainage network so as to reassess the tax such that the rental value becomes proportional to the increase in yield per unit area.
- The MWRI must license the drilling of artesian wells in the Nile Valley, Delta, Natroun Valley and Tahrir province (Directorate).
- Agencies licensing floats on the Nile banks or major canals must obtain an approval from the MWRI to ensure bank maintenance.
- Drainage engineers were given the powers of law enforcement agents.

- Accentuating the penalties for serious contraventions, which were disproportionately penalized in previous laws.
- A special fund was created within the Irrigation Authority with an issued capital of LE 700,000 for the damage repairs, if and when violators failed to make repairs.
- Administrative committees were created to decide on the contraventions stipulated in the law. Each committee was composed of a court judge, the district irrigation engineers and a member of the socialist union (then ruling party). The purpose was to expand the administrative committees instead of having only one committee at the governorate level.

Law 68/1953 (law on Irrigation and Drainage) stipulated that the Irrigation Authority may instruct violators to rectify the contravention within the specified dates. Otherwise, repairs must be executed at the violator's own expense. It also provided for the possibility of completing the repairs first and charging the cost to the violator later, if and when the contravention necessitated immediate repair. Law 74/1971 incorporated a condition that the violator must be officially indicated before being requested to repay the cost of repair.

However, the enforcement of this article has proven difficult, due to the fact that violators are rarely detected, let alone the fact that the committees stipulated in Law 74/1971 were not operative. Therefore, the MWRI reconsidered appropriate ways to catch transgressors of public irrigation and drainage utilities. In 1976, an amendment was introduced to Article 80 of Law 74/1971, to read as follows: "When a transgression on irrigation and drainage utilities is proven, the concerned irrigation engineer has the power to instruct the transgressor to rectify the damage within a set date; or otherwise the repair works will be executed at his own expense. Violators shall be notified in person or by registered recommended mail, or upon receipt of a copy of the technical report prepared by the irrigation engineer. In this case, the violator is bound to pay LE 20 as a deposit to the repair works account. In all cases, the violator shall pay an amount equivalent to the benefits attained as a result of his contravention, according to the categories specified in a decree by the Minister of Irrigation".

Law 134/1983 (Concerning rules and regulations for fisheries and aquaculture)

The law stipulated that the fish farms must be located in fallow lands, as defined by the Ministry of Agriculture. It also prohibited the use of fresh water for this purpose. According to the law, only agricultural drain and lake waters, as defined by the MWRI, can be used. The MWRI sets the rules of water use and the MALR issues the licenses. The law stipulated a clause for imprisonment for no less than three months and a fine of no more than LE 10,000 as penalties for violation of its provisions.

In view of recent years of shortage in rainfall and droughts in North and East Africa, every drop of water is valuable for development. The MWRI has always been keen to maximize the benefits from the available water resources and safeguard them against possible damage and transgression. It has always sought to secure water to meet the increasing demand by the various sectors including agriculture, the largest user of water resources. Short and long term plans were designed and implemented to improve irrigation, rationalize water use and increase the efficiency of on-farm irrigation. These efforts were crowned with the promulgation of Law 12/1984.

2.3 Review of Present laws

Law 12/1984

In 1984, Law 12 was enacted as a comprehensive legislation on irrigation and drainage affairs. It amended most of the provisions of the previous laws covering, in particular, the following chapters:

Chapter One: Public Properties Relating to Irrigation and Drainage

Chapter Two: Private Mesqas and Drains

Chapter Three: On-farm Drains

Chapter Four: Water Distribution

Chapter Five: Irrigation and Drainage Fees

Chapter Six: Protection of Irrigation, River Navigation and Coasts

Chapter Seven: Penalties

Chapter Eight: General Provisions

In September 1987, the executive regulations (bylaws) were issued by Ministerial Decree No. 14717. Following are the salient features of Law 12/1984:

- Landlords, whose lands are opposite banks of public canals and drains have the right to cut down trees, with the written consent of the Director General of Irrigation, provided that the landlords plant three trees for each tree cut down. The purpose of this article was to preserve the country's wood wealth and to promote forestation on the riverbanks.
- The term "landholders" was used instead of "landlords" in illustrating the demarcation line between holdings, with regard to the dredging and maintenance of the private mesqas and drains. When it relates to the drilling and use of private mesqas or drains across lands owned by others, then the decision becomes the sole responsibility of the landlord.
- The law obliged farmers not to damage the industrial works of the on-farm drains. It also stipulated that the terms of a water-well drilling license have to be strictly observed, including the set water-lifting rates.
- The law includes a special section on "Irrigation of New Lands." It introduced new provisions prohibiting any construction on the northern coast within 200 meters of the Mediterranean Sea water line.
- The law stipulated more severe penalties for those crimes which, in earlier legislation were not given penalties proportional to their consequences on irrigation and drainage utilities. Deterrent penalties were introduced for contraventions to the new provisions of the law.
- The law dissolved the administrative committees constituted within the circuit of each court to decide on irrigation and drainage utilities transgressions. This jurisdiction was assigned to the normal courts of law. The law amended the article pertaining to elimination of damage. It assigned the Director-General of Irrigation the authority to issue an order for the administrative elimination of the consequences of the contravention.
- The law provided for a special fund for repair works in case the violator failed to restore the utility to its original condition. The accrued receipts (fees, fines, charges, damages and cost of removal of the contraventions) must be transferred to that fund.
- The law established a dispute resolution mechanism at the governorate level, with a judge, to be nominated by the chairman of the primary court, as committee-chairman.

The committee members are the Deputy Director of the Survey Authority, the Deputy Director of Agriculture and a member of the Governorate's Municipal Council.

Law 213/1994

This law was promulgated to amend some provisions of Law 12/1984. Two new articles have been incorporated. The name of the MPWWR was replaced with the MWRI. Article 64 stipulates that license-holders in the new lands must apply modern irrigation technologies, in accordance with the provisions of the license. The licensing terms, conditions, and of water distribution costs shall be clearly stated.

Article 71 stipulates that the Minister of MWRI shall issue a decree specifying the methodology of managing the improved irrigation systems, including the creation of Water Users Associations (WUAs).

Law 213/1994 complemented Law 12 with two new articles concerning improved on-farm irrigation in the old lands, where IIP is implemented, and the creation of a special fund to secure financing for developing and maintaining the improved mesqas and increasing public awareness in the field of water use.

In February 1995, the Minister of MWRI issued Decree 149 concerning implementation of some provisions of the law of irrigation and drainage. The decree covered the following major areas:

Section One: Maintenance of Private Mesqas and Drains

Section Two: Irrigation of the New Lands

Section Three: WUAs in the New Lands

Section Four: Utilization of Improved On-farm Irrigation in the Old Lands

Section Five: The Special Fund for Developing and Maintaining Mesqas

Law 48/1982

In 1953, Law 196 was issued to regulate the drainage of wastewater from public, commercial and industrial entities into water bodies. It is considered the first legislation that regulates the drainage of liquid waste, including effluents. Law 33/1954 amended some of the provisions of the previous laws in regard to the authority which issues licenses (Ministry of Housing and Utilities) after consulting with the Ministry of Health.

In 1962, Law 93 was issued to regulate drainage of waste into public streams and of liquid water from residential, commercial and industrial operations into water streams. The law continued to permit the drainage of effluents into streams after securing the approvals of MOH, MOI and MWRI. The Ministry of Housing and utilities issues the license, under the conditions:

- The water stream's capacity is enough to receive the liquid waste.
- The liquid waste quality complies with the standards set by the MOH.

The law continued to permit the drainage of effluents into rayahs, canals, drains and lakes, provided that the approval of the MWRI has been obtained by the applicant. The law only made an exception for the Nile's proper stream and main branches. It allowed the extension of the six-month period for the treatment of waste for other equal periods. Even under the circumstances of a real threat, the law did not require prevention of the drainage of waste unless by a reasoned decree.

The executive regulations (by-laws) of this law were issued in Decree 649/1962 by the Minister of Housing, specifying the standards of the waste to be drained and methods of sampling and analysis.

With time, the problem of water pollution became aggravated, and the river system was drastically abused. The problem became more conspicuous in rural Egypt where effluent is drained into the agricultural drains. The MWRI has always viewed these practices as transgressions against irrigation and drainage streams. But it has always lacked the means to remove the contraventions, or the resources to finance this process under Law 169/1953 and Law 93/1962.

In 1982, Law 48 was issued for the protection of the Nile and water streams against pollution. Its by-Law was promulgated in February 1983, including eight chapters:

Chapter One: Definitions of Water Streams

Chapter Two: Licensing the Drainage of Treated Liquid Wastewater into Water Streams.

Chapter Three: Monitoring of Compliance with Licensing Conditions

Chapter Four: Floats and Mobile Units

Chapter Five: Sampling and Analysis

Chapter Six: Standards for Treated Liquid Waste to be Drained into Water Streams

Chapter Seven: The Special Fund (fees, charges, fines to be transferred to the fund)

Chapter Eight: General Provisions

2.4 Problems Facing Law Enforcement

Recently, numerous laws have been enacted to regulate the performance of government agencies. Under these circumstances, certain jurisdictions are duplicated, thus leading to overlaps in certain functions. For example, there is a lack of clear vision as to the roles of MWRI and the municipal units in Law 43/1979 concerning irrigation. Article 12 of Chapter 9 of Law 43 confers the right to assume the following functions on the governorate, within the framework of the MWRI general policies and rules dealing with the following:

- Maintenance of water streams that serve the governorate.
- Maintenance of drains existing in toto within the boundaries of the governorate.
- Operation and maintenance (O&M) of the irrigation and drainage stations serving the governorate.
- Utilization of the groundwater by drilling wells, installing pumps and the related maintenance works.
- Maintenance of private irrigation and drainage facilities.
- Supervision of the irrigation turn system implementation in view of emergency circumstances that require readjustment of the turn interval system.
- Conversion of private mesqas and drains into public properties.
- Elimination of contraventions and transgressions on public irrigation and drainage utilities.

- Approval of new irrigation and drainage projects and management of surveying activities (by offices of the Egyptian Survey Authority at the governorate level).
- Survey services including those relating to notarization.
- Implementation procedures of the Land Title Registry law, as approved by the Board of Directors of the Land Title Registry Fund.
- Implementation of the Agrarian Reform laws.
- Removal of transgressions on state properties.
- Procedures for establishing demarcation lines between state-owned and privately owned land parcels.
- Surveys of crop plantations to furnish the Ministry of Agriculture with the actual acreage of each crop.

The reality is that Law 12/1984 regulates all the above-mentioned functions through clearly stated provisions.

With regard to Law 48/1982, MWRI's responsibility for the protection of water streams against pollution overlaps with other state agencies, resulting in exacerbation of the water pollution problem. Law 48 includes an article relating to licensing wastewater drainage near residential quarters or the commercial/industrial installations. In the meantime, the local administration Law 43/1979 assigns this responsibility to the municipalities, each within its area of jurisdiction. Municipalities also assume all jurisdictions of ministries, with the exception of national utilities or utilities of a special nature, as specified in a Presidential Decree. Therefore, the governor represents the Executive Authority at the governorate level and oversees the implementation of the state's public policies, service utilities and production, within the governorate boundaries.

Ineffective enforcement of some laws resulted from assigning certain responsibilities to only one state agency. For example, sampling and periodical analysis is the sole responsibility of the MOH. Other government laboratories should be involved. Likewise, a plan should be devised for emergencies resulting from non-compliance with the licensing terms and conditions. The three-month repair period has proven insufficient, and the General Authority for Sanitary Drainage is not in a position to technically keep abreast of state-of-the-art

technologies for wastewater treatment plants. Consequently, the applicants for licensing will have to select, on their own, the latest technology in the field of wastewater treatment.

Drainage of treated human or animal waste into fresh waters or groundwater reservoirs needs to be reconsidered. Groundwater reservoirs must be protected so as to ensure non-contamination. In addition, fees and advance payments, as stipulated in the by-laws, are too low since the inflation rate has not been taken into account.

Law 4/1994 (law of the Environment) is more comprehensive. It stipulates more severe penalties for water, air, and soil pollution. For water, pollutants include solar oil, wastewater, and garbage from vessels or from other sources. It clearly defines certain criteria to be met before project construction and during operations. According to the law, compliance with the standards is checked regularly. Action is taken against violators. Fines have been increased and grace periods reduced for redress. If a violator fails to comply with the required measures, EEAA will remove the contravention administratively (using the law-enforcement agency) and withdraw the license immediately. The by-laws specify the prohibited non-degradable pollutants.

2.5 Proposals for Better Law-Enforcement

To render Law 12/1984 and Law 213/1994 more effective, they must be reviewed in light of the on-going changes in water management in Egypt. All the laws that relate to irrigation and drainage should include a special clause stating that provisions of the other laws shall not contradict the provisions and rules of the irrigation, drainage and pollution laws. The Irrigation and Drainage law should incorporate a provision that prohibits summoning, arresting, or interrogating MWRI engineers who have law enforcement agent status for performance of duties entrusted to them, without prior written approval from the Minister of MWRI. Likewise, Articles 67, 68, and 74 pertaining to irrigation of the new lands, and Article 72 regarding fees for irrigation and drainage using state-owned pumps, need to be reconsidered. Chapter 8 of Law 12, pertaining to penalties, has to be reviewed accordingly.

To remove duplication, define responsibilities and accentuate penalties, the following laws need to be reviewed:

- Law of the Environment (Law 4/1994);
- Law of Irrigation and Drainage (Law 12/1984);
- Law of the Protection of the Nile River and its Waterways
- from Pollution (Law 48/1982);
- Law of Desert Lands (Law 143/1981);
- Law of Local Municipalities (Law 43/1979);
- Law of Agriculture (Law 53/1966); and
- Law of Agrarian Reform (Law 178/1952).

3 Proposed Modifications to Law 12/1984: Analysis and Revision

3.1 Introduction

The present law regulating the irrigation and drainage works is Law No. 12/1984, amended by Law 213/1994. Since the last amendment of the present law, numerous changes have occurred and new visions have called for making the law more flexible. According to the instructions of MWRI, a committee was established to review Laws 12 and 213 and to propose a comprehensive law, including flexible programs, that can accommodate changes and facilitate difficulties in enforcing the present law.

New visions have also appeared in water policy, the most important of which is the necessity for beneficiaries and water users to participate in water management while bearing some of the costs of operation and maintenance.

3.2 Analysis of Proposed Modifications

In this section, proposed modifications are analyzed and justifications for each of the proposals are provided.

PART I

DEFINING WATER RESOURCES AND WATER USES; PUBLIC PROPERTIES PERTAINING TO WATER RESOURCES

This Part contains 18 articles distributed over 3 chapters as follows:

Chapter 1: Defining Water Resources and Water Uses (Articles 1 – 2):

According to Article (1), “Water Resources” means limited natural resources with social, economic, and environmental dimensions having the status of public property. The Ministry of Water Resources and Irrigation is authorized to manage and develop the water resources in all possible means; and to control and regulate their uses.

This definition is new. The previous laws concerning irrigation and drainage did not contain any definition of the water resource but most of these laws only cited or enumerated some of these resources as part of the list of public properties pertaining to irrigation and drainage.

According to Article (2-a), water resources in use are: the River Nile water; rainwater and floodwater; deep groundwater; desalinated water; and any freshwater from unconventional sources. For the purposes of the present law, the water resources include the agricultural drainage water; the treated industrial and sanitary drainage water; and the shallow groundwater.

It is obvious from the previous enumeration of water resources contained under Article (2) that the criterion adopted by the draft law concerning water resources is that the water must be fresh and fit for water use.

According to Article (2-b), the water uses include: irrigation; drinking and human uses; industry; in-stream transportation and river navigation; generation of hydroelectric power; and tourism activities and environment support.

Chapter 2: Public and Private Properties Pertaining to Water Resources (3-9):

In this Chapter, some lands and basins are added to the public properties pertaining to the water resources described in the previous law. These include:

- The Aswan Dam Lake basin;
- Toshka depression basin;
- Any other basins formed as a result of building dams or reservoirs;
- The lands, 200 m. wide, located alongside the northern coastal line of the state, the Red Sea, the Suez Gulf, and the western side of the Gulf of Aqaba;

- The lands acquired as a result of establishing protection projects or for any other natural reasons;
- The lands surrounding the groundwater wells as may be designated by the Ministry of Water Resources and Irrigation; and
- The lands where the Ministry conducts artificial water recharge (Article 3).

According to Article (4), no person may without license from the Ministry of Water Resources and Irrigation execute in the said lands any work or dig any holes therein that would endanger the safety of the water streams. The competent engineer of the Ministry of Water Resources and Irrigation is authorized to enter the said lands to inspect the works that are being executed.

The draft law fully authorizes the Minister of Water Resources and Irrigation to take the necessary measures to complete the constructions of canals and public drains. The Minister is also authorized to deem private feeders (*Mesqas*) or private drains as public properties if they are directly connected to the River Nile, public irrigation canals, drains, or lakes (Article 5).

According to the draft law, the Ministry of Water Resources and Irrigation may coordinate with the other concerned public or private bodies in respect of supervising the public properties pertaining to the water resources. However, these bodies, must act under the full control and supervision of the Ministry of Water Resources and Irrigation and may permit the use of the part under their control only with permission from the Ministry of Water Resources and Irrigation (Article 6).

To cultivate a land owned by the State, which is located within the public properties pertaining to water resources, or to establish a jetty on the Nile banks, public canals or public drains, a license must be obtained from the Ministry of Water Resources and Irrigation (Article 8).

Chapter (3): Private Works in the Public Properties Pertaining to Water Resources (10 – 18)

In this Chapter, the proposed law seeks to enable the public properties to carry out their functions in accordance with the general plan of the Ministry of Water Resources and Irrigation. It also tries to limit the effects of private works erected inside these properties and to put such works under the full control of the Ministry.

Therefore, the proposed law permits performing or modifying such works only by license from the Ministry of Water Resources and Irrigation in accordance with such conditions as the Ministry may determine. It also requires for such works to be performed or modified that certain fee, to be determined by the Minister of Water Resources and Irrigation, be paid upon licensing (Article 10).

The draft law authorizes the Ministry of Water Resources and Irrigation to cancel a license for such work or deem the licensed work, upon the end of the license period, a public property of the State. If the license is cancelled after the end of its period, no compensation is paid. If the license is cancelled before the end of its period, the licensee is compensated for the work cost in proportion to the remaining period of the license.

Under the draft law, the Ministry of Water Resources and Irrigation is bound to require that the licensee permit the owners or holders of the other lands to benefit from the licensed work if the license is intended to irrigate a land or drain water there from. The other landlords and landholders, however, must pay an appropriate part of the construction costs to be determined by the competent General Manager. The license must designate the area of the land benefiting from the licensed work. The other landlords and landholders continue to benefit from the licensed work even if new owners or holders of these lands replace the old ones (Article 12).

According to Article (13) of the proposed law, a licensee must maintain and keep in good order and repair the licensed work in accordance with the license conditions. The licensee is also bound to make such renovation or alteration as may be deemed necessary for the public interest by the Ministry at such time and in accordance with such specifications as the Ministry may determine, otherwise, the Ministry implements the same at the licensee's expense. Where a license is issued to a group of persons, they are held jointly bound in performance and liability (Article 13).

The proposed law, however, permits the licensee to renovate or alter the licensed work only with a written permission from the Ministry of Water Resources and Irrigation (Article 14).

According to Article (15), where the license conditions are violated and the licensee does not remove the reasons of violation, the department that has issued the license may cancel the license and remove the licensed work.

The license may also be withdrawn if the State performs a work that would render the licensed work redundant. In this case, the Ministry of Water Resources and Irrigation is authorized to issue a decision canceling or removing the licensed work without having to pay damages (Article 16).

The proposed law also binds the licensee to remove the licensed work and restitute the public property within such period as may be determined by the Ministry of Water Resources and Irrigation. Otherwise, the Ministry will do the same at the licensee's expense if the license is not renewed and the Ministry has not decided to annex the licensed works to the State's property (Article 17).

The private bridges and other water installations erected under a license by the Ministry of Water Resources and Irrigation across a public irrigation canal, drain, or flood plain are deemed public properties subject to the supervision of the Ministry upon the moment they are constructed (Article 18).

PART II

ENSURING THE RIGHTS OF USE OF PRIVATE SOURCES AND IRRIGATION AND DRAINAGE STREAMS

This Part contains 13 articles (19 – 31) and corresponds to Part II of Law No. 12/1984 concerning private *mesqas* and drains and Part III concerning field drains.

The drafters of the proposed law combined Part II with Part III of Law No. 12/1984 in one part including all their provisions together with the amendments introduced thereto.

The proposed law gives the landlords using a joint private *mesqa*, a joint irrigation stream, or a joint groundwater well, the right to withdraw water from, or drain water into, them in proportion to the area of land owned by each landlord.

The draft law authorizes the local irrigation inspector to lay down the rotation schedules for this purpose. It also gives the landlords the right to complain of the inspector's decisions to the competent general manager who is authorized to decide finally on such complaint and his decision is deemed final. The competent general manager is authorized to hear any conflict that may arise from the way the said right of use is exercised (Article 19).

According to the proposed law, the responsibility to dredge and maintain the private *mesqas* and drains and preserve their embankments in good condition lie with the landlords. If the landlords fail to carry out this function, the competent manager may instruct them to do so. Failing this, the competent administrative department may implement such works and collect the actual costs thereof by administrative ways from the landlords in proportion to the land area each of them owns including the damages for each land occupied because of such works (Articles 20 and 21).

Being an important source of water, the groundwater wells were added, in Article (29), to the private *mesqas* and drains, which a competent general manager may decide to block, stop their use, remove, or deem useless where there is another source for irrigation or drainage. There is no doubt that adding the groundwater wells to the water resources is in conformity with the approach of the Ministry's general plan and its efforts to conserve the water use.

The proposed law binds the users of private *mesqas*, drains, or groundwater wells to take, at such date as may be determined by the competent general manager, the necessary action to prevent the damage resulting from their *mesqas*, drains, or groundwater wells. Failing this, the competent general department may take such action at their expense (Article 29).

To cope up with the technological development of irrigation and drainage systems, the draft law made the provisions of this Part applicable to the joint improved systems of irrigation and drainage including the groundwater wells (Article 30).

PART III

WATER DISTRIBUTION

This Part contains 24 articles distributed on 3 chapters as follows:

Chapter (1): Water Management and Water Distribution Regulation (32 – 36)

According to Article (32), the Ministry of Water Resources and Irrigation is responsible for water management, regulation, and distribution for all uses from all sources on private intakes and openings. The Ministry may determine or modify the systems of water resource use to fit the purpose of such use. The Ministry also determines all the methods to be adopted for water management and distribution.

The Ministry of Water Resources and Irrigation regulates the method of participation by the farmers and water users and makes available the private and government funding necessary for construction, replacement, rehabilitation, operation, and maintenance works of irrigation and drainage-related networks. The Ministry regulates, in particular, the formation of corporate water users associations in both the old and new lands for private or public irrigation networks. It also regulates the formation of corporate water boards in certain lands of specific geographical borders and public water sources. The Minister of Water Resources and Irrigation or whomever the Minister may delegate establishes by decision such water users associations and water boards as provided in the Executive Regulation of this Law (33).

To catch up with the economic development in Egypt, Article (34) of the proposed law authorizes the Ministry of Water Resources and Irrigation to entrust a specialized company, or an association, or a water board to construct, manage, operate, and maintain, at their expense, parts of:

- Irrigation and drainage networks;

- Groundwater wells;
- Joint reservoirs and dams;
- Improved irrigation systems; or
- Tile drains.

To ensure that water is fairly distributed, the draft law authorizes the competent general manager, where the public interest so requires, to prevent at any time even during on-periods taking water for irrigation from a public canal or groundwater well or to prevent the excessive use or wasting of water by farmed lands (Article 35).

In addition to the rice crop, which consumes great quantity of water, the draft law also cites other water-consuming crops. Therefore, the proposed law prohibits cultivating such crops except with license from the Ministry of Water Resources and Irrigation provided that such crops and the cultivated areas are designated by decision by the Minister of Water Resources and Irrigation after consulting the Minister of Agriculture and Land Reclamation (Article 36).

Chapter 2: Water Intakes and Drain Outflows (37 – 43)

To preserve the State's water resources, the draft law prohibits the erection of any water intakes, regardless of their purposes, particularly on the Aswan Dam Lake or the River Nile except by license from the Ministry of Water Resources and Irrigation. The reason behind inserting the Aswan Dam Lake is due to the importance attached to this lake as a strategic reservoir for freshwater and for providing the desert reclamation projects with the necessary water (Article 37).

Chapter 3: Water-Lifting Machines (44 – 55)

No pump or equipment driven by a fixed or mobile mechanical automated device or by any other method may be erected or operated to lift water from a water resource for any of the designated water uses without license from the competent general department. The license applicant must pay such fee as may be determined by a decision of the Minister of water Resources and Irrigation (Article 44).

The proposed law has cancelled the 10-year ceiling determined by Article 49 of the previous law No. 12/1984.

PART IV

DEVELOPING AND IMPROVING IRRIGATION AND DRAINAGE SYSTEMS

The provisions of this Part were introduced into the draft law to reflect the trend to develop and improve the existing irrigation and drainage systems. This Part contains 14 articles distributed on 2 chapters as follows:

Chapter 1: Developing Surface Irrigation Systems (56 – 61)

The draft law links the provisions of this chapter with the provisions of Part II protecting the rights of use of the private sources and private irrigation and drainage streams. The draft law requires for the application of the provisions of this Chapter that they should not affect the provisions of Part II of this draft law (Article 56).

According to Article (57), the Minister of Water Resources and Irrigation or whomever he may delegate defines by decision the command areas where private *mesqas* must be developed by applying improved irrigation systems in accordance with the field technical and social studies conducted by the Ministry's Division for Irrigation Improvement. The Ministry's decision is binding by operation of law to all the parties involved in the improvement process including the farmers, the landlords, and the landholders. The Minister of Water Resources and Irrigation may, by decision, take possession temporarily of the lands necessary for constructing the improved irrigation network and may, in accordance with Law No. 10/1990 concerning Expropriation for Public Interest, take actions for the expropriation of such lands.

The Minister of Water Resources and Irrigation regulates by decision the methods of managing and using the improved irrigation systems in the old lands in which these systems are to be adopted by establishing corporate water user associations and water boards (Article 58).

The owners of these old lands shall bear the costs of improving the private *mesqas* and their contents on pro rata basis as per the number of feddans each owns and in accordance with the rules described under Article (64) of this draft law (Article 59).

Under the proposed law, the Special Fund for financing the projects for the development and maintenance of the improved *mesqas* in the old lands will continue to perform its functions. The Fund is created by virtue of Article (36), bis (1), of the law No. 12/1984 as amended by law No. 213/1994. The Minister of Water Resources and Irrigation determines by decision the rules regulating the Fund's financial policy, and the formation of its board of directors made up of representatives of the water users associations and water boards (Article 60).

The draft law provides the water user associations and water boards with the necessary protection in respect of the private pumps they use. More important, The draft law prohibits the use of any pumps on the improved *mesqas* other than the private pumps used by the water users associations (Article 61).

Chapter 2: Improving and Developing Drainage Systems (Articles 62 – 69)

According to the draft law, the Minister of Water Resources and Irrigation may by decision temporarily take possession of the lands necessary for the construction of the open and tile drainage network. The Minister also may take the necessary procedures to expropriate the ownership of these lands in accordance with the provisions of Law No. 10/1990. The cost of the erection and renovation of the network of the tile field drains and the open or tile drain collectors are divided on all the lands located in the drainage unit (Articles 62 and 63), in accordance with the terms and conditions described under Article (64).

According to the draft law, the Administration's estimation of the costs and the parts to be paid by each landlord of these costs are final only after the lapse of challenge deadlines. Complaints must be filed first with the competent inspector at the local land registry office and, then, are decided on by a committee formed for this purpose. The Committee is chaired by the competent inspector or acting inspector of the local land registry office and comprises representatives of the Ministry of Agriculture and the local cooperative; a specialist from the

local land registry office, and an engineer from the Ministry of Water Resources and Irrigation. The Committee's decision may be challenged before the competent court of first instance but the challenge does not give rise to the suspension of the enforcement of the decision (Article 64).

The proposed law assigns to the drain user associations the function of performing the periodic and general maintenance of the tile drainage networks within the boundaries of the drain collector, otherwise, the competent general department carries out such maintenance. In this case, the competent general department collects, by administrative means, the actual costs from the landlords in proportion to the area each owns of the land benefiting from the drain collector plus appropriate damages for the land occupied because of such maintenance (Article 67).

The draft law prohibits tampering with, or causing damage, to the industrial works of both tile field drain network types. Regardless of the penal code provisions, the competent engineer must prove any violation of any provision of Article (68). If the violator's act causes damage to a third person, the competent engineer may instruct the violator to restitute the thing subject of the violation within such short period as the engineer may determine, otherwise, the competent general department makes restitution at the violator's expense.

The draft law creates a Special Fund to implement and supervise the tile drain projects. The Fund's resources are obtained from the appropriations allocated in the State's general budget; the proceeds of loans, grants, and installments paid by the landlords; and the Fund's investment returns. The Minister of Water Resources and Irrigation determines by decision the rules regulating the Fund's financial policy and the formation of its board of directors made up of representatives of the associations of the users of tile drain collectors (Article 69).

PART V

IRRIGATION OF NEW LANDS

This Part contains 6 articles beginning with Article (70) and ending with Article (75).

The draft law defines “New Lands” as every land not previously licensed to be irrigated (Article 70).

In order to preserve the state’s water resources and to prevent waste, the draft law provides that no land may be sold or allotted for horizontal agricultural expansion or agricultural development purposes, by any ministry or body to any individual or group. There may be exceptions to this rule after the purpose of the allotment has been indicated and the Ministry of Water Resources and Irrigation determines that there are enough sources of water to irrigate and cultivate such land. The Ministry may determine the quantities of water necessary for the other activities; such as industrial, commercial, tourist, or other purposes (Articles 71 and 72).

The license to irrigate the new lands is issued by the Minister of Water Resources and Irrigation or whomever he may delegate (Article 73). Unless otherwise specifically provided in the draft law concerning the irrigation of the new lands, all the other provisions of the draft law apply to the irrigation of new lands. For the purposes of enforcing the provisions of this Part, the Minister of Water Resources and Irrigation defines by decision:

- The terms and conditions for licensing the irrigation of new lands;
- The costs and charges for water supply and distribution; and
- Establishing corporate water users associations and water boards (Article 74 - 75).

PART VI

GROUNDWATER

This Part contains 8 articles from Article 76 to Article 83.

Groundwater is an important water source, especially in deserts and areas with no surface water network. For this reason, Part VI is devoted entirely to groundwater.

According to Article (76), no deep or shallow groundwater well may be dug in the Arab Republic of Egypt except with license from the Ministry of Water Resources and Irrigation, in accordance with such conditions as may be determined by the Ministry. This applies even

if the well has to be dug in land governed by the provisions of law No. 143 of 1981 concerning the desert lands. It makes no difference if those engaged in digging the groundwater well are ordinary citizens, contractors, or companies (Article 76).

A person licensed to dig a well must comply with the license conditions concerning well use and the determined rates and quantities of water. The license to use the well is issued and renewed by the local competent general department (Articles 77 and 78).

The license to use the well is withdrawn or cancelled if the well is not used within three years from the date the license is issued or if the well is used for purposes other than those for which the license is issued. The Minister of Water Resources and Irrigation regulates by decision the procedures, methods, and conditions for digging wells (Articles 79 and 80).

The Minister of Water Resources and Irrigation regulates by decision the methods to be adopted by the Ministry in managing and using the wells by way of establishing corporate water boards and water user associations. The Minister of Water Resources and Irrigation also defines by decision the wells and *mesqas* for which charges are collected for their erection, management, and maintenance (Articles 81 and 82).

The draft law creates a Special Fund to finance the erection of groundwater wells, control the distribution of its water, and increase awareness about groundwater conservation (Article 83). This is a new article in its vision and approach. The Minister of Water Resources and Irrigation determines by decision the Fund's regulations, line-up of its board of directors, by-laws, and resources.

PART VII

CHARGES OF PUMPS AND WATER-LIFTING MACHINES

This Part contains 5 articles from Article 84 to Article 88.

According to the draft law, the Minister of Water Resources and Irrigation determines the rates for using the State's pumps and water-lifting machines (Article 84).

The draft law, however, requires that no charges be collected in excess of the fixed charges. If excess charges are collected, the extra excess must be refunded. Excess charges can be proved with adequate evidence regardless of the disputed amount (Article 85).

According to the draft law, a person licensed to drain - into the Nile, groundwater, or public drains - water resulting from an activity other than the agricultural activity is bound to pay such charges as may be determined in accordance with the rules and rates laid down by decision of the Minister of Water Resources and Irrigation (Article 86).

The draft law also binds the user of a groundwater well or a lifting machine to irrigate, and drain water from, the lands for which a license is issued. The user may not, unless there are serious reasons, cease to use such wells or the machines licensed for irrigation or drainage purposes (Article 87).

PART VIII

PROTECTION OF WATER RESOURCES, STRUCTURES, NAVIGATION, AND SHORES

This Part, corresponding to Part V of the previous law No. 12/1984, contains 12 articles distributed in 3 chapters, as follows:

Chapter 1: Protection from High Water Level Threats (Articles 89 – 92)

According to the draft law, the Minister of Water Resources and Irrigation may, by decision, announce the State of Emergency if there are risks threatening the safety of dams, reservoirs, or embankments; thus, requiring implementing urgent protection works in accordance with an emergency plan laid down by the Ministry of Water Resources and Irrigation.

Chapter 2: Protection of Water; Removing Obstacles of Irrigation, Drainage, and Navigation (articles 93 – 97)

Article (93) prohibits works that may affect the water resources. No person may waste or squander water. In view of the great importance attached to the Aswan Dam Lake as it provides all the parts of the country with water, the draft law prohibits draining into the Aswan Dam Lake whether from the lands, installations, or cruising river units.

Article (93) also prohibits transporting toxic or hazardous materials by river transportation units through the navigation waterways. In addition, it prohibits injecting liquid wastes or dumping solid scrap polluting the groundwater.

As regards establishing fish farms, the draft law prohibits establishing fish farms or breeding boxes in the Nile stream and its branches extending to Edfina and Faraskour barrages. The draft law also prohibits establishing installations on the flood plains, and setting up any works that would affect the water environment (Article 93).

According to Article (94), the Ministry of Water Resources and Irrigation is authorized to license certain works. Some of these works are already provided in Law No. 12/1984. The draft law, however, introduces additional works, which must be licensed. These include: irrigating lands with drainage water; draining into a public drain, a groundwater well, or a flood plain; digging groundwater wells to use their water in irrigation, drinking, or industry; and driving river transportation units, passenger transports, floating hotels, or ferry boats. In all cases, the permitted tonnage, the navigation route, and the captains' efficiency must be observed.

Chapter 3: Sea Coast Management and Protection (Articles 98-100)

The draft law prohibits, without affecting law No. 4 of 1994 concerning environment protection, the erection of installations on the coasts along the Mediterranean Sea, Red Sea, Gulf of Suez, and the western coast of Aqaba Gulf for a distance of two hundred meters wide in land from the coastal water line except with license from the General Egyptian Authority for Coast Protection (Article 98).

The draft law did not neglect the cases of high emergency, which require establishing installations of a special nature inside the prohibition area described in Article (98). But, in such cases, the General Egyptian Authority for Shore Protection must approve such works in advance, defining the protection works necessary for that installation. Protection works, however, are made against fees to be determined by the executive regulations of the draft law.

PART IX

PENALTIES

This Part contains 12 articles (101 – 112) and addresses the penalties applicable in case of violation of the provisions of the draft law. But the application of the provisions of this Part must not affect any tougher penalty provided in the Penal Code or any other law.

The draft law seeks to achieve the highest possible deterrence to the individuals and persons governed by, or violating, its provisions. It was for this purpose that the draft law:

- Raises the fines imposed under the penal clauses contained in the draft law (Articles 102 – 108);
- Toughens the penalties in case of recidivism (Article 102);
- Link the fine amount to the number of feddans subject of some violations (Article 106);
- Authorizes the Ministry of Water Resources and Irrigation to make restitution at the violator's expense in some cases in addition to imposing the determined penalty (Article 110);
- Punishes the violator no matter if he is a landlord, a landholder, or a squatter in case of violation of the provisions of certain articles (Article 108); and
- Determines a maximum fine of LE 50,000 in case of violation of the provisions of Articles 76 and 93.

PART X

GENERAL AND FINAL PROVISION

This Part contains 7 articles (113- 119).

According to Article (113), town and village mayors are bound to keep and maintain the industrial works related to the water resources entrusted to them in accordance with the conditions agreed upon between the Ministry of Water Resources and Irrigation and the Ministry of Interior. They are also bound to notify the competent authorities of any loss of these works immediately when such loss is discovered.

The draft law raises the capital of the Special Fund for Restitution concerning irrigation and drainage, before the law is repealed, from seven hundred thousand Egyptian Pounds (LE 700,000) to ten million Egyptian Pounds (L.E. 10,000,000). This Fund, created under Article 103, Law 12/1984, concerns irrigation and drainage. The Fund is allocated to cover restitution costs if the beneficiary fails to make restitution. The entire fees, fines, and indemnities decided pursuant to the draft law accrue to the Fund (Article 115).

Article (117) allows the Minister of Water Resources and Irrigation to determine by decision the rules regulating cost sharing by water users for installing water projects and structures.

The draft law creates a committee in each summary court to decide on the crimes provided in the draft law. The Committee, chaired by the court judge, comprises governmental officials including a works manager selected by the Undersecretary for Water Resources and Irrigation; a municipal council member selected by the municipal unit head; a police officer selected by the governorate police department head; and a representative water user from a board or association selected by the Ministry's undersecretary for the governorate. The Committee must issue its decision within one month from the initial hearing (Article 118).

Establishing a Committee composed as described above would ensure equity because of the members' intimate knowledge of the issues. More importantly, bringing together people's organizations, executive departments, and judicial bodies in dispute settlement would ensure quick resolution based on a clear vision.

In light of the similarity between the present draft law and Law No. 48/1982 concerning Protecting Nile and Water Streams against Pollution, the latter is deemed an integral part of the present draft law on the grounds that both concern water resource preservation in quantity and quality (Article 119).

4 Proposed Revisions to Executive Regulation of Water Resources Law

4.1 Introduction

The Water Resources Law has been amended to catch up with the new water policies and the latest developments in this respect. Therefore, it was necessary to lay down an executive regulation for the amended law. The purpose of this Regulation is to:

- Explain the vague provisions of the above-said law;
- Limit the broad meanings of certain general terms in that law;
- Lay down the procedures necessary for obtaining the services provided in that law;
and
- Determine the levels of management authorized to issue the necessary decisions to implement the law.

The Executive Regulation of the Water Resources Law consists of eight parts (125 articles). These parts are as follows:

PART I.	Defining water resources, water uses, and public properties pertaining to water resources
PART II.	Protecting the rights of use of the sources and methods of private irrigation and drainage
PART III.	Water distribution
PART IV.	Developing and improving irrigation and drainage systems
PART V.	Irrigation of the new lands
PART VI.	Groundwater
PART VII.	Protection of water resources, water structures, navigation, and shores
PART VIII.	General and closing provisions

4.2 Amendments Introduced to the Executive Regulation of Water Resources Law:

The main features of revised Law 12 Executive regulation are given as follows:

- The draft Executive Regulation defines the water resources in use and lists them in particular under Article (2).
- The draft Executive Regulation broadens the scope of the public properties pertaining to the water resources provided under Article (3) and adds to these resources the following:
 - The flood plains;
 - Nasser lake basin;
 - Toshka depression basin; and
 - Such lands surrounding the State-owned underground wells as the Ministry of Water Resources and Irrigation may determine.
- Article (4) of the Draft Executive Regulation adds, for the general purposes of the water resources, more restrictions on the lands privately owned to the State or any other person which are located:
 - within the limits of the embankments of the Nile and its branches or of the public canals; and
 - outside these embankments and canals as far as specified under the above-said article.
- Pursuant to Article (15) of the Draft Water Resources Law, Article (12) of the Draft Executive Regulation gives the licensing department the right to cancel the license where the license conditions are not complied with or if the license produces negative effects, which the licensee has not avoided them.
- Pursuant to Article (17) of the Draft Water Resources Law, Article (13) of the Draft Executive Regulation binds the licensee, in case that the license is not renewed, to remove the erected licensed works and restitute the public property.
- Pursuant to Article (18) of the Draft Water Resources Law, Article (14) of the Draft Executive Regulation deems as public properties the private bridges erected on a canal or a drain.

- Article (19) through Article (40) of the Draft Executive Regulation expands the system of electing a Water User Association for each private mesqa, private drain, or joint method of irrigation or drainage where the number of users exceed ten persons. The Draft Executive Regulation, under these articles, grants these Associations a corporate capacity so that they can fulfill their desired goals; namely, managing and maintaining the private mesqas and drains in such way that would ultimately achieve fair and efficient distribution of the water among the members of the Association. In addition, the above-said articles describe the responsibilities of the Association's Chairman of the Board of Directors, Treasurer, and Secretary and specify the sources of its funding.
- To ensure the best management of the public irrigation networks, Article (41) of the Draft Executive Regulation required that a ministerial decision be issued in case of transferring the administration of parts of the irrigation and drainage networks to the users. The decision must contain the procedures, responsibilities, and other relevant organizational matters. Article (41) also authorizes the Minister to create Water User Associations in respect of the branch canals.
- Article (42) and Article (43) of the Draft Executive Regulation create the system of Water Boards at the level of the command areas having specified geographical borders and the public water resources. A Water Board comprises all the local water users including the farmers, residents, and those engaged in other related activities such as the factories and electricity generation. The function of the Water Board is to regulate public participation in the management, maintenance, replacement, and rehabilitation of the irrigation and drainage networks.
- Pursuant to Article (86) of the Water Resources Law, Article (44) of the Draft Executive Regulation increases the charge for water use and exploitation to match the increase in the prices of the other commodities in light of the present economic circumstances.
- Article (51) of the Draft Executive Regulation, in line with the amendments introduced by Article (19) through (40), requires the farmers at the level of each improved mesqa to establish a Water User Association. The

function of this Association is to operate, maintain, replace, and rehabilitate the mesqa; regulate the operation time and the rotation schedules among the farmers; and determine the responsibilities of the pump's operator and guard.

- Pursuant to Article (69) of the Water Resources Law, Article (67) through Article (74) of the Draft Executive Regulation create a special fund called “The Fund for *Drainage System* Improvement, Replacement, Rehabilitation, and Maintenance”. The purpose of this Fund is to:
 - Provide the funding necessary to implement, improve, replace, rehabilitate, and maintain the tile drainage projects;
 - Supervise the implementation of these projects; and
 - Increase the awareness about the preservation of drainage networks to increase crop productivity.
- Pursuant to Article (70) through Article (74) of the Water Resources Law, Article (75) through Article (82) of the Draft Executive Regulation amends the provisions governing the irrigation of the new lands. The purpose of this amendment is to reflect the State's policy of expanding the cultivated lands, conserving the water use, and applying the modern irrigation systems. The Draft Executive Regulation lays down the conditions that would ensure the efficient performance of these systems and the implementation of the necessary maintenance, repair, and replacement works.
- Pursuant to Article (83) of the Water Resources Law, Article (95) through Article (102) create a special fund called “The Fund for Desert Groundwater Well Construction, Maintenance, Replacement, and Rehabilitation”. The purpose of the fund is to:
 - provide the necessary funding to construct, maintain, replace, and rehabilitate the groundwater wells;
 - Supervise the construction of these wells; and
 - Increase awareness about the need to preserve and protect them from pollution.
- To make it easy for the beneficiaries to apply for the services offered by the Ministry of Water Resources and irrigation, Article (123) of the Draft Executive Regulation requires that the competent general department issues sample

application forms indicating the required documents, the due fees, and the time limits for benefiting from such services.

5 Conclusions

The proposed modifications in Law 12/1984 and its executive regulation are classified as follows:

First: Legal Structural Issues

- Changing the Ministry's name to "Ministry of Water Resources and Irrigation" in place of "Ministry of Public Works and Water Resources" which was cited in Law 12.
- Changing the law title from Law 12 on Irrigation and Drainage to modified Law 12 on Water Resources.
- Modification of the term "Irrigation Director – General" stated in Law to define the specific Director – General responsibility, each in his own specialty: "Irrigation Director – General; Drainage director – General; Nile Protection Director – General"
- Replacement the term "pertaining to irrigation and drainage" by the term "pertaining to water resources"

Second: Simplifying Law Application

Some of the law articles stated conditioned applications such as: "The condition of threatening the safety of the banks and affecting the water current; thus damaging those banks, other lands, and constructions".

In practice, it was noted that the violators build or dig in their lands without having permits, considering from their viewpoints that such works do not threaten the safety of the banks. It is deemed necessary to re-consider this condition, whereby any building or digging works should be licensed prior to implementation.

Third: Inadequacy of Some Items of Law 12 to Cover all Ministry Responsibilities

- The public properties pertaining to irrigation and drainage do not include the spillways, or the basins of the High Dam Lake and Toshka Depression. For the safety

of inhabitants, it seems imperative to add the natural / artificial spillways and basins of the High Dam Lake and Toshka Depression to the water resources public properties.

- Law 12/1984 states that reimbursement of the covered drainage costs should be either from the landowner or the occupant, or from both. But after issuance of the law determining the relationship between landowner and tenant, it seems appropriate to modify this paragraph that reimbursement of the covered drainage costs should be borne by the landowner only.
- Law No. 213/1994, Article 36 (bis1) states that the Water Resources and Irrigation is authorized to decide on the manner the farmer manages and benefits from the improved on-farm irrigation systems in the old lands. In view of the importance of the matter, it seems necessary to add a special chapter on the subject of improving irrigation in the old lands (Chapter 5, Unit 4) which gives the Ministry full authority by force and by Ministerial Decree from the Minister of Water Resources and Irrigation to implement such improvements.
- The Water User Associations or have become principal units of nominal character in water resources management at the farm level in the new lands, besides their fundamental role in the improved irrigation systems in old lands, as well as the on-farm covered drainage systems.
- The estimated values of the penalty fines are too small to compensate the negative impacts affecting the agricultural production. It is imperative to consider raising the value of such fines in order to limit the great numbers of violations.
- For simplifying the legal procedures, it is proposed to form a committee in each court of summary jurisdiction headed by a judge and staffed by specialized personnel to judge the crimes mentioned in the law. The sentence of this court is considered final and is out into force by the public prosecution.

Fourth: New Issues to be Included in the Proposed Law According to the Present Water Policy Vision

- Constitution of Water User Associations - on the distributary or branch canal level - responsible for the management, operation, and maintenance of the irrigation and drainage networks, with the participation of the beneficiaries themselves and under supervision of the irrigation and drainage officials.

- It is beneficial to encourage the establishment of private companies for the management, operation, and maintenance of irrigation and drainage networks. This could be financially supported by the Administrative boards on the level of the canal or drain general networks, and by the Water Users' Associations on the on-farm irrigation and drainage level.

The proposed executive regulation covers:

- Legal basis for all water users organizations both in new and old lands.
- Stakeholders involvement in water allocation, planning and management.
- Role of private sector.
- Water charges, cost recovery and cost sharing.
- Use of groundwater both in the Nile Valley and the deserts.
- New lands development.

The stakeholders' workshop, held to review the draft of the revised Law 12 and its executive regulation, met its objective in soliciting stakeholders' feedback.

It is necessary to amend the following laws to avoid conflicting overlaps:

- Law of the Environment (Law 4/1994);
- Law of Irrigation and Drainage (Law 12/1984);
- Law of the Protection of the Nile River and its Waterways from Pollution (Law 48/1982);
- Law of Desert Lands (Law 143/1981);
- Law of Local Municipalities (Law 43/1979);
- Law of Agriculture (Law 53/1966); and
- Law of Agrarian Reform (Law 178/1952).

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US Agency for International Development
Agricultural Policy Reform Program
Environmental Policy and Institutional Strengthening Indefinite Quantity Contract

**APRP—Water Policy Activity
Contract PCE-1-00-96-00002-00
Task Order 807**



***REVISED LAW 12 OF 1984 ON WATER RESOURCES
AND ITS EXECUTIVE REGULATION***

***Report No. 48
Appendices***

December 2001

Water Policy Program		
International Resources Group	Winrock International	Nile Consultants

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APPENDIX A

REVISED LAW 12/1984 ON WATER RESOURCES

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III. Explanatory note of a draft law concerning water resources

LAW 12/1984
PROMULGATING WATER RESOURCES LAW

*In the name of the people,
The President of the Republic*

The People's Assembly has enacted the attached law and it is hereby promulgated.

Article (1):

The provisions of the attached law shall become effective concerning water resources.

Article (2):

There are hereby repealed:

- Law No. 12 of 1984 promulgating Irrigation and Drainage Law;
- Law No. 213 of 1994 amending some provisions of the Irrigation and Drainage Law; and
- Any provision in conflict with the provisions of this law.

Article (3):

The Minister of Water Resources and Irrigation issues within six months from the date this law takes force the executive decisions necessary for implementing the provisions of this law. Pending issuing these decisions, the regulations and decisions in force at present shall be applied insofar as they are consistent with the provisions of this law.

Article (4):

This law shall be published in the Official Gazette and shall take effect after two months from the date it is published. This law shall be stamped by the State's seal and shall become operative as one of the State's laws.

Issued at the Presidency of the Republic

On

Corresponding to

(Islamic Calendar)

(AD)

The President of the Republic
Mohamed Hosny Mubarak

**DRAFT LAW CONCERNING
WATER RESOURCES MANAGEMENT**

**PART I
DEFINING WATER RESOURCES AND WATER USES;
PUBLIC PROPERTIES
PERTAINING TO WATER RESOURCES**

**Chapter 1
Defining Water Resources and
Water Uses**

Article (1):

“Water Resources” means limited natural resources with social, economic, and environmental dimensions having the status of public property. The Ministry of Water Resources and Irrigation is authorized to manage and develop the water resources in all possible means; and to control and regulate their uses.

Article (2):

One. Water Resources in Use:

- a-1 River Nile water;
- a-2 Rainwater and floodwater;
- a-3 Deep groundwater;
- a-4 Desalinated water;
- a-5 Any freshwater from unconventional sources

For the purposes of this law, there are deemed water resources the re-used:

- a-6 Shallow groundwater;
- a-7 Agricultural drainage water; and
- a-8 Treated industrial and sanitary drainage water.

Two. Water Uses:

- b-1 Irrigation;
- b-2 Drinking and human uses;
- b-3 Industry;
- b-4 In-stream transportation and river navigation;
- b-5 Generation of hydroelectric power; and
- b-6 Tourism activities and environment support.

Chapter 2
Public and Private Properties
Pertaining to Water Resources

Article (3):

The Public properties pertaining to the water resources include:

One. The River Nile stream (with its branches) and the embankments thereof inclusive of all the lands located between the Nile embankments but exclusive of the lands and installations privately owned by the State or any other person.

Two. The main canals, public canals, public drains and the banks thereof inclusive of the lands and installations located between those banks unless such lands or installations are privately owned by the State or any other person.

Three. Flood plains.

Four. The installations controlling, distributing, and managing the water.

Five. The Aswan Dam Lake basin; Tushka depression basin; Tushka spillway canal; and any other basins formed as a result of building dams or reservoirs.

Six. The lands, 200 m. wide, located, in the Arab Republic of Egypt alongside the coastal line of the Mediterranean Sea, the Red Sea, the Suez Gulf, and the western side of Aqaba Gulf; and the lands acquired as a result of establishing protection projects or for any other natural reasons.

Seven. The lands designated by the Ministry of Water Resources and Irrigation around the groundwater wells owned by the State to protect and ensure the best use of these wells. Also, the lands in which the Ministry undertakes artificial recharge of groundwater.

Eight. The lands expropriated for the public interest to develop, manage, and use the water resources.

Article (4):

The lands privately owned by the State or by any other public or private persons or by certain individuals, which are located inside the River Nile banks, the public irrigation canals, the public drains, or the flood plains; 30 meters wide outside the River Nile banks, 20 meters wide outside the constructions of the irrigation canals, drains, and flood plains; on the banks of the Aswan Dam Lake as provided in the executive regulation; and within the surroundings of the groundwater wells are subject to the following restrictions for the general purposes of water resources even if these lands are the responsibility of a body referred to under Article (6): The Ministry of Water Resources and Irrigation may undertake such works as it may deem necessary to protect, maintain, or rehabilitate the embankments or public installations and may take from the said lands the earth needed for such works provided that the owners of these lands are fairly compensated in accordance with the law. The Ministry of Water Resources and Irrigation may dump into the said lands the earth produced from dredging the public irrigation canals, the public drains, and the flood plains provided that the owners of these lands are fairly compensated in accordance with the law. No person may without license from the Ministry of Water Resources and Irrigation erect in the said lands any work or dig any holes therein.

Without prejudice to provisions of Articles (3) and (5), the competent engineer of the Ministry of Water Resources and Irrigation may enter the said lands to inspect the executed works. If the competent engineer finds out that a work has been or is being performed in violation of the above-said provisions, he may instruct the violator to remove such works within a reasonable period of time, otherwise, the engineer may instruct that such works be stopped and removed by administrative way at the violator's expense without need to waiting for a court judgment.

Article (5):

The Minister of Water Resources and Irrigation may by decision deem a private feeder (*mesqa*) or a private drain a public irrigation canal or a public drain if such *mesqa* or drain is directly

connected to the River Nile, a public irrigation canal, a public drain, or a lake. The Minister of Water Resources and Irrigation may, by decision under Law No. 10/1991 concerning property expropriation for the public interest, expropriate such other surface areas as may be needed to complete the constructions of the public irrigation canal or public drain.

Article (6):

The Ministry of Water Resources and Irrigation supervises the public properties stated in Article (3) of this law. The Ministry, however, may entrust to another ministry, a public department, a local government unit, a public or private authority, a water board (*Maglis*), or a water association, the supervision of any part of these properties. These bodies, however, may not permit the use of the parts under their control except with permission from the Ministry of Water Resources and Irrigation.

Article (7):

Where there is a change in the water level due to any emergency or unforeseen or unexpected reasons, the State is not liable for any damage caused to the lands or the installations located inside the constructions of the public properties pertaining to the water resources referred to under Article (3).

Article (8):

No lands owned by the State, which are located inside the public properties pertaining to the water resources may be planted or used and no jetty may be erected on the Nile banks, public canals, or public drains except with a permission from the Ministry of Water Resources and Irrigation and in accordance with such conditions as it may determine.

Article (9):

No trees or palms may, without license from the Ministry of Water Resources and Irrigation, be planted on or inside the public embankments or in the public streams and other public properties pertaining to water resources. The trees that have been planted or are being planted in such lands are deemed a public property of the State.

Chapter 3

Private Works

In the Public Properties

Pertaining to Water Resources

Article (10):

No private work may be performed within the boundaries of the public properties pertaining

to the water resources and no alterations may be made in such properties except with license from the Ministry of Water Resources and Irrigation in accordance with such conditions as the Ministry may determine and upon the payment of a fee to be determined by decision of the Minister of Water Resources and Irrigation. The same charge is due when extending the said license.

Article (11):

The Ministry of Water Resources and Irrigation may require to license a work, referred to under the previous article, that such work becomes, at the end of the license or at any time during the license period, a public property of the State without paying any compensation. If the work, however, is removed or the allotment is changed before the end of the license period, the licensee is compensated for the work cost in proportion to the remaining period of the license except if the Ministry makes an arrangement that would render such work redundant.

Article (12):

Where the licensed work is intended to irrigate a land or drain water there from, the Ministry of Water Resources and Irrigation may require that the owners or holders of the other lands be permitted to benefit from such work provided

that they pay an appropriate part of the construction costs to be determined by the competent general manager. The license must designate the area of the land benefiting from the licensed work. The benefiting lands continue to benefit from the licensed work even if new owners or holders of these lands replace the old ones.

Article (13):

A licensee shall maintain and keep in good order and repair the licensed work in accordance with the license conditions and shall make such renovation or alteration as by the Ministry may deem necessary for the public interest at such time and in accordance with such specifications as the Ministry may determine, otherwise, the Ministry implements the same at the licensee's expense. Where a license is issued to a group of persons, they are held jointly bound in performance and liability.

Article (14):

A licensee may not, without written permission from the Ministry of Water Resources and Irrigation, rehabilitate or alter a licensed work.

Article (15):

Where a license condition is violated or negative effects have arisen due to the license

and the licensee does not avoid or remove it at such time as the Ministry may determine the department, which has issued the license, may cancel the license, or prevent the work from being used, or remove such work.

Article (16):

Where the State performs a work that would render the licensed work redundant, the license provided under Article (10) is cancelled and in this case the Ministry of Water Resources and Irrigation may issue a decision to keep or remove the work without having to pay damages in both cases.

Article (17):

Where a license is not renewed in accordance with Article (10) and the Ministry has not decided to annex the licensed works to the State's property in accordance with Article (11), the owners of such works shall remove them and restitute the public property within such period as may be determined by the Ministry of Water Resources and Irrigation, otherwise, the Ministry will do the same at the expense of the owners of these lands.

Article (18):

The private bridges and other hydraulic structures, which are constructed across the

public irrigation canals or the public drains or the flood plains under prior license, are, once they are constructed, deemed public property supervised by the Ministry of Water Resources and Irrigation.

PART II
PROTECTING THE RIGHTS OF USE
OF THE PRIVATE SOURCES AND
PRIVATE STREAMS
USED FOR IRRIGATION AND DRAINAGE

Article (19):

Landlords using a joint private *mesqa* or any other joint irrigation stream or a joint groundwater well, or a joint reservoir, or a joint booster station, or a joint private drain may withdraw or drain water in proportion to the area of land owned by each landlord.

The local irrigation inspector lays down the rotation schedules for the lands to which this system applies and the administration officers or water boards or water user associations apply such schedules under the supervision of the local irrigation inspector. Complaints about the decisions of the competent local irrigation inspector are submitted to the competent general manager and the decision thereof on such complaints is final. The competent general manager is authorized to settle any dispute that may arise from the way the said right of use is exercised.

Article (20):

Landlords using private *mesqas* or private drains shall dredge such *mesqas* or drains; clear them of the Hyacinth plant and any other plants and weeds impeding the water movement; maintain them; and preserve their embankments in good condition. The landlords using the groundwater wells shall clear and maintain such wells.

Article (21):

The competent general manager may, upon a report from the competent engineer on a complaint filed by an interested person concerning a violation of the previous article, notify the concerned administrative department or the water user associations to instruct the landlords or landholders to clear the *mesqa*, or drain, or well or remove the impediments hindering the movement of water, or maintain such *mesqas* and drains, or rehabilitate the embankments thereof, or re-erect the embankments at a fixed date. Failing this, the competent general department implements the same and the actual costs thereof are charged by administrative ways from the landlords using such *mesqa* or drain or well in proportion to the land area each of them owns including the damages to be paid for each land occupied or damaged because of such works.

Article (22):

Where the lands located at the sides of the private *mesqa* or private drain are the property of a group persons, the center of the *mesqa* or the drain is deemed a separating line between their properties in respect of the dredging and maintenance works unless a contrary evidence is established.

Article (23):

The lands in which a private *mesqa* or a private drain passes is deemed encumbered with servitude rights for the benefit of the other lands using such *mesqa* or drain unless a contrary evidence is established.

Article (24):

Where a landlord or a landholder or a leaseholder files a complaint with the competent general department because he is unduly prevented or obstructed from:

- using a private *mesqa* or a private drain or any method or system of improved irrigation; or
- entering any land for clearing and maintaining such *mesqa* or drain or advanced method of irrigation, which is his only available way of irrigation or

- drainage, or
- renovating such *mesqa* or drain or advanced method of irrigation,

Then, the competent general manager shall, if it is proved that the land of the claimant was benefiting from the claimed right in the year prior to filing such complaint, issue a provisional decision to enable the claimant and any other users to exercise the claimed right provided that the issued decision includes the rules regulating the exercise of these rights.

The said decision must be issued within a maximum of fifteen days from the date the competent general management receives such complaint and must be executed and continue to be executed at the respondent's cost until the competent court issues a final decision on the said rights.

Article (25):

Where it is not possible for a landlord to adequately irrigate or drain his land except by erecting or using a private *mesqa* or a private drain or a private groundwater well located in a land owned by another person and he fails to reach an agreement with the owners thereof, the competent general manager shall upon filing a complaint by such landlord, order an investigation into the complaint.

The competent administrative department shall, within a maximum of two weeks from the date the competent general manager receives the complaint, order to furnish such maps and documents as may be necessary for deciding on the complaint. The competent inspector shall conduct the investigation at the site of the *mesqa* or drain after all parties concerned, the chairman of the concerned agricultural cooperative, and the head of the water user association are notified by registered mail, return receipt acknowledged, of such place and date as may be designated by the competent inspector fourteen days at least before moving to the said site.

The findings of the investigation are submitted to the competent general manager to issue a grounded positive or negative decision. The decision must be issued within two months from the date the maps and documents are furnished and must be communicated to all the interested parties by registered mail, return receipt acknowledged. The above-said provisions apply where there is a request to erect a water-lifting machine on, or dig a groundwater well in, the lands of another person.

Article (26):

Where a channel for irrigating or draining a land is changed or blocked for public interest, the competent general manager shall issue a decision to erect another channel for irrigation or drainage in accordance with the procedures mentioned under Article (25) and the decision is enforceable at the cost of the body which has caused such change before the irrigation or drainage channel is blocked.

Article (27):

A decision issued in accordance with Articles (25) and (26) is enforced by administrative ways after paying damages to all affected persons. If the decision

permits the use of an existing private *mesqa* or a private drain or a groundwater well, the indemnity must include a part of the estimated erection costs at the time of use calculated in proportion to the area of the land benefiting from the same. If the interested person refuses the determined indemnity or if it is not possible to pay it to him, the indemnity is deposited in an account in his name with the treasury of the competent inspection department and he is so notified by registered mail, return receipt acknowledged. Depositing the indemnity is deemed as if the indemnity has been satisfied.

Article (28):

Where a decision is issued in accordance with Articles (19), (24), (25), (26), and (27) in favor of more than one person, the competent general management may authorize one or more than one of them to execute the decision on behalf of the other persons. The person in whose favor the decision is issued may have recourse on the other persons in respect of the costs each one of them bears in proportion to the area of his land.

Article (29):

Where the competent general manager finds that a private *mesqa* or a private drain or a private groundwater well is useless because there is another channel for irrigation or drainage, he may decide to block it or stop its use or remove it.

If a damage is proved to be caused by a private *mesqa*, or a private drain or a private groundwater well, the competent general manager shall take the necessary action to prevent the damage and the owners of the stream or the well shall implement the decision at such date as may be determined by the competent general manager, otherwise, the competent general department may take such action at the cost of the said owners.

Article (30):

The provisions of the articles (19) to and through (29) apply to the joint methods and systems of improved irrigation and drainage including the booster stations; the suction and delivery pipes; the valves; the title drain network pipes and the like; and groundwater wells.

Article (31):

An interested person may complain to the Minister of Water Resources and Irrigation of the decisions issued by the competent general manager except for the decisions issued in accordance with the provisions of Article (19) and (24) provided that such complaint is filed within fifteen days from the date the interested person is notified of the decision. Filing a complaint gives rise to the suspension of the decision unless the decision provides that it is immediately effective.

A final decision on the complaint is given within sixty days from the date the complaint reaches the Office of the Minister. If the Minister does not decide on the complaint during that period, the complaint is deemed rejected.

7PART III
WATER DISTRIBUTION

Chapter 1

- 7.1** Water Management and
7.2 Water Distribution Regulation

Article (32):

The Ministry of Water Resources and Irrigation is authorized to manage and regulate on private intakes and openings the distribution of water from all sources for all uses. The Ministry may determine or modify the systems of water resource use to fit the purpose of such use. The Ministry also determines the methods to be adopted for water management and distribution and announces such methods by administrative ways through local general departments.

Article (33):

The Ministry of Water Resources and Irrigation regulates the method of participation by the farmers and water users and makes available the necessary private and government funding for irrigation and drainage-related construction, replacement, rehabilitation, operation, and maintenance works. The Ministry shall establish corporate water user associations in the old and new lands in respect of private or public irrigation networks and shall establish corporate water boards in certain lands of specific geographical borders and

public water sources. The Minister of Water Resources and Irrigation or whomever the Minister may delegate establishes by decision such water user associations and water boards as provided by the Executive Regulation of this Law.

Article (34):

The Ministry of Water Resources and Irrigation may entrust to a specialized company or a certain water user association or water board the responsibility of constructing, managing, operating, and maintaining - at the water users' cost - parts of the irrigation and drainage networks; groundwater wells; joint reservoirs and dams; or systems of improved irrigation and tile drainage.

Article (35):

Where an emergency so requires for the public interest, the competent general manager may order at any time even during on-periods that no water be taken from a public canal(s) or a groundwater well(s) to ensure that the water is fairly distributed or that no excessive water be given or wasted to farmed lands.

The competent general department may take the necessary procedures to prevent the violation of the decisions issued pursuant to the previous paragraph; and may, in particular,

prevent by administrative ways the passage of water into a *mesqa* or its branches and may obstruct by appropriate method the water lifting.

Article (36):

No rice may be planted in lands other than the canal command areas licensed annually by the Ministry of Water Resources and Irrigation within the limits of the percentages determined for each canal. No rice also may be planted in the lands irrigated by the groundwater wells or public drains except by license from the competent general management in accordance with the conditions determined by the Ministry. No water-consuming crops designated by the Minister of Water Resources and Irrigation may be cultivated except with license from the Minister of Water Resources and Irrigation after consulting the Minister of Agriculture and Land Reclamation.

Chapter (2)
Water Intakes and Drain Outflows

Article (37):

No water intakes regardless of their purposes may be erected on the Aswan Dam Lake, or the River Nile, or public canals and drains and no groundwater wells may be dug except by license from the Ministry of Water Resources and Irrigation and in accordance with such conditions as may be determined by the Ministry. Any works erected beneath the Nile banks by the competent general department are paid for by the respective licensee.

Article (38):

If the competent general department finds that the discharge of a private intake or a groundwater well is more or less than the actual quantity required for its intended actual purpose, the department may after identifying the points of view of the water users make the required modification at such date as it may determine to achieve its intended purpose. The General Manager approves the final modification provided that it becomes enforceable at the appropriate dates.

Article (39):

Where the competent general department, after conducting an inspection, finds that a private water intake on the Nile, a public canal, a public drain, or a groundwater well causes damage to an embankment or a channel or an installation or to another person because of a defect in its erection, or neglect of its maintenance, or for any other reason, the competent general department shall within such period as it may determine notify the interested persons of the required works. If the interested persons fail to do the required works, the competent administrative department may at the expense of the landlord renovate, re-erect, or make the necessary modifications to the water intake.

Article (40):

If the competent general department finds that a private intake on the Nile or on a canal, or on a drain, or on a groundwater well causes damage to an embankment or an installation, the competent general department may instruct the landlord or the interested person to remove or block such intake at a reasonable time to be communicated to him, otherwise, the competent general department, after arranging another method for irrigating his land at the State's cost and before blocking the irrigation channel, executes the same at the expense of the landlord or the interested person.

Article (41):

Were there is more than one channel to irrigate an area, the competent general department shall order the cancellation of the use of excess channels after interested persons are so notified.

Article (42):

If the State takes at its own expense the necessary measures to supply water from the Nile or a public canal or a well to a land irrigated from a private intake from the Nile or the main canals or a public canal or a well, the competent general department shall order the cancellation of the use of such intake or its removal at the State's expense.

Article (43):

The provisions of this chapter apply to the openings made on the Nile or the public drains and canals, or the drainage wells to drain water into the Nile or into a public drain or into the ground.

Chapter (3) **Water-Lifting Machines**

Article (44):

No pumps or equipment driven by a fixed machine or by a mobile mechanical automated device or by any other method may be erected or operated without license from the competent department to lift water from the Aswan Dam Lake or the Nile River or the public streams or groundwater wells or reservoirs whether for purposes of irrigation or drainage or drinking or industry. The applicant for the license shall pay such fee as may be determined by a decision of the Minister of water Resources and Irrigation.

Article (45):

Where a pump or equipment or a machine or the accessories thereof are to be installed on a land not owned by the license applicant, he shall obtain a written permission from the landlord. But if the pump or machine or equipment or the accessories thereof are to be installed on a private *mesqa*, or a private drain, or wells or reservoirs of mutual use, the permission is given by the competent general department provided that the licensee does not prejudice the rights of the other users. The competent general department is entitled during the license period to deactivate the pump or the equipment for a specific period for the interest of the other users but the licensee has no right to claim damages.

Article (46):

Where a pump, a machine, moving equipment, or the accessories thereof is replaced, a new license must be obtained if such replacement leads to a change of the discharge, or if locations are changed. But, where ownership is transferred or a machine or equipment or a pump is replaced without change of the discharge, the same is only instructed in the license certificate and the previous owner remains jointly liable with the new one for implementing the provisions of this law until the same is instructed in the license certificate.

Article (47):

A person who trades in water-lifting equipment used for irrigation or drainage mentioned under Article (44) shall notify both the Mechanical and Electrical Department and the Underground Water Division of each sale or disposition of such equipment within fifteen days from the date of disposition of the equipment. The notice must contain such other details as may be determined by the Minister of Water Resources and Irrigation.

Article (48):

There may not be erected, without license from the competent general department in accordance with such conditions as it may determine, any water wheels or scoop wheels or any other machines driven by cattle to lift water from the Nile or from a

public or private stream of mutual use or to drain the drainage water into the Nile or into a public drain or a basin listed under Article (3) hereof. A license concerning these machines is not limited to a specific period. The applicant for license shall pay such fee as may be determined by decision by the Minister of Water Resources and Irrigation.

Article (49):

There may be, without license from the Ministry of Water Resources and Irrigation, installed and operated *Shadoofs*, drums, and other manually-operated water-lifting machines provided that such machines are not installed within the constructions of the public canals or public drains or the Nile banks and its branches thereof.

Article (50):

A license to install a machine in accordance with the provisions of this law does not exempt from obtaining any license required by other laws.

The Ministry of Water Resources and Irrigation may by decision at the State' cost:

- move a licensed pump or equipment;
- change the site of a licensed groundwater well or dam; or
- move the works erected for such purpose to another location,

to protect the banks and irrigation and drainage installations; erect new works; or modify existing works of public benefit.

Article (51):

If a license requires doing additional works necessary for taking or draining water, such works are done at the expense of the license applicant.

Article (52):

A person licensed to erect a water-lifting machine shall enable all users listed in the license to use the machine subject of the license.

Article (53):

Granting a license does not give rise to any right for the water to pass through the lands of a third party. The licensee alone is held liable for any act or deed causing damage to a third party. If the Nile stream is detoured, thus, forming an island or river alluvial deposits towards a land on which an authorized water-lifting machine is erected, the licensee is entitled without paying any damages to dig a *Mesqa* in the new land to permit the water to reach such machine.

Article (54):

The competent general manager may when necessary deactivate a machine operated in violation of the provisions of this law or prevent the water from reaching the machine without having to wait for a determination on the violation.

Article (55):

The Minister of Water Resources and Irrigation or whomever he may delegate may issue a grounded decision canceling a license if the conditions thereof are violated.

PART IV
DEVELOPING AND IMPROVING
IRRIGATION AND DRAINAGE SYSTEMS

Chapter 1
Developing Surface Irrigation Systems

Article (56):

Without prejudice to the provisions of the articles under Part II of this law, improved irrigation systems are applied in accordance with the plans and policies adopted by the Ministry of Water Resources and Irrigation in the old lands irrigated by surface flood irrigation through networks of canals and *mesqas*.

Article (57):

The Minister of Water Resources and Irrigation or whomever he may delegate defines by decision the command areas where private *mesqas* must be developed by applying improved irrigation systems in accordance with the field technical and social studies conducted by the Ministry's Division for Irrigation Improvement. The Ministry's decision is binding by operation of law to all the parties involved in the improvement process including the farmers, the landlords, and the landholders. The Minister of Water Resources and Irrigation may, by decision, take possession temporarily of the lands necessary for constructing the improved irrigation network and may, in accordance with Law No. 10 of the year 1990 concerning Expropriation for the Public Interest, take actions for the expropriation of such lands.

Article (58):

The Minister of Water Resources and Irrigation shall by decision regulate the methods of managing and using the improved irrigation systems in the old lands in which these systems are to be adopted and shall establish corporate water user associations and water boards.

Article (59):

The costs of improving the private *mesqas* and their contents in the old lands are collected from the users after the Ministry of Water Resources and Irrigation determines the costs of their construction in accordance with the

rules described under Article (64) of the draft law.

Article (60):

There continues the activity of the Special Fund for financing the projects for the development and maintenance of the improved *mesqas* in the old lands, created by virtue of Article (36), bis (1), of the law No. 12 of 1984 as amended by law No. 213 of 1994. The purposes of the Fund are to supervise the implementation of these projects; increase awareness in the field of water use; and assist the water user associations and water boards to achieve their objectives.

The Fund's resources are obtained from the appropriations allocated for the Fund in the State's general budget; the proceeds of loans, grants, and installments paid by the landlords for the improvement projects; and the Fund's investment returns.

The Minister of Water Resources and Irrigation shall determine by decision the rules regulating the Fund's financial policy, and the formation of its board of directors made up of representatives of the water user associations and water boards.

Article (61):

No pumps may be operated on the improved *mesqas* other than the pumps of the water user associations.

Chapter 2
Improving and Developing
Drainage Systems

Article (62):

The drainage systems in the agricultural lands in the Arab Republic of Egypt shall be improved and developed in accordance with the plans and policies of the Ministry of Water Resources and Irrigation. The Minister of Water Resources and Irrigation may by decision temporarily take possession of the lands necessary for the construction of the open and tile drainage network. The Minister also may take the necessary procedures to expropriate the ownership of these lands in accordance with the provisions of Law No.

(10) of 1990 concerning property expropriation for the public interest and the executive regulations thereof.

Article (63):

Without prejudice to the provisions of law No. 38 of 1976 concerning agricultural land improvement and maintenance, the Ministry of Water Resources and Irrigation shall erect, replace, and rehabilitate the network of tile field drains and tile or open collectors so that all the lands included in the drainage unit can be connected by a series of public main and subsidiary drains. The cost of the erection, replacement, and rehabilitation of the tile drainage network and the accessories thereof are divided on all the lands located in the drainage unit.

Article (64):

The Ministry of Water Resources and Irrigation shall make a statement of the costs of erection of the tile field drains or improved *mesqas*. An amount equivalent to 10 % of the erection cost is added as an administrative fee. The statement indicates the part of the cost of each feddan of the lands included in the drainage or irrigation unit. The costs of the field drain or field irrigation networks are born by the landlords.

A landlord may pay the amounts referred to under the previous paragraph either at one time or in annual installments provided that all costs must be paid within a period of no more than twenty years and that the amount of each installment must not be less than twenty pounds. The payments are collected starting from the first year following the implementation. The Ministry of Water Resources and Irrigation shall send to the competent bodies a statement indicating the basins included in the drainage or irrigation unit and the amounts to be collected per feddan. The Minister of Finance shall regulate by decision the collection of these amounts at the same dates fixed for the collection of the land tax and such amounts have the same precedence right decided for the land tax.

A statement on the part of the cost to be paid by each landlord is posted for two weeks at least at the principal office of the agricultural cooperative and on the notice board at the municipal council or the local police station where the lands exist. Before the statement is displayed, a notice on the date and place of its display must be announced in the Egyptian gazette. Interested persons may within the thirty days following the end of the display period may complain of the cost amount, otherwise, the estimated cost becomes final. Complaints must be filed with the competent inspector at the local land registry office and are decided on by a committee formed for this purpose. The Committee is chaired by the competent inspector or acting inspector of the local land registry office and comprises representatives of the Ministry of Agriculture and the local cooperative; a specialist from the local land registry office, and an engineer of the Ministry of Water Resources and Irrigation.

The Committee's decision may be challenged before the competent court of first instance but the challenge does not give rise to the suspension of the enforcement of the decision.

Article (65):

The Ministry of Water Resources and Irrigation shall - within one year from the date of the erection of the tile or open drainage network, or of the public drainage network or of the improved irrigation network - notify the Real-estate Tax Authority of the lands in which the network is erected to re-estimate the tax on these lands.

Article (66):

The Minister of Water Resources and Irrigation shall, by decision creating corporate drain user associations, regulate the method of management of the tile drainage systems and the method of their use by the farmers. These associations are responsible for managing and maintaining the tile drainage networks within the boundaries of the land of the collector.

Article (67):

The drain user associations shall perform the periodic and general maintenance of the tile drainage networks within the boundaries of the land of the drain collector, otherwise, the competent general department carries out such maintenance in accordance with the provisions of Article (20) and (21) of this law.

Article (68):

There is deemed a violator, a person who causes damage to the industrial works of both types of the tile drainage network such as

inspection holes, washing units, and outflows. This includes damage caused by:
destroying parts of the industrial works;
stealing components of the industrial works;
filling the drain network with earth;
throwing scrap into it;
draining irrigation water into it;
connecting the drain network with sanitary or industrial drainage; or
erecting any installations on it.

Without prejudice to the provisions of the penal code, where a violator's act causes damage to a third party, the competent engineer shall prove any violation described under this article and may instruct the violator to restitute the thing subject of the violation within such short period as the engineer may determine, otherwise, the competent general department makes restitution at the violator's expense.

Article (69):

There is hereby created a Special Fund to implement, replace, renovate, and maintain the tile drainage projects. The Fund's resources are obtained from the appropriations allocated in the State's general budget; the proceeds of loans, grants, and installments paid by the landlords; and the Fund's investment returns.

The Minister of Water Resources and Irrigation shall determine by decision the rules regulating the Fund's financial policy and the formation of its board of directors made up of representatives of the associations of the users of tile drainage collectors.

PART V

IRRIGATION OF NEW LANDS

Article (70):

For the purposes of this part, there are deemed new lands every land not previously licensed to be irrigated under the provisions of this law, whether it being inside the valley, Delta, or in any other place inside the Arab Republic of Egypt, and allocated water resources in the State's plan.

Article (71):

No land may be allotted for horizontal agricultural expansion without the approval of the Ministry of Water Resources and Irrigation to make sure that a water source is available for its irrigation as may be determined by the Ministry.

Article (72):

No land may be sold or allotted for agricultural development purposes by any ministry or body to any individual or group or company or association except after indicating the purpose of sale or allotment and after the Ministry of Water Resources and Irrigation determines that there are enough sources of water to irrigate and cultivate such land. The Ministry may determine the quantities of water necessary for the other activities; such as industrial, commercial, tourist, or other purposes.

Article (73):

The Minister of Water Resources and Irrigation or whomever he may delegate is authorized to issue licenses to irrigate the new lands. The licensee shall follow such irrigation method as may be described in the license. If the licensed irrigation method is not complied with, the department issuing the license of irrigation source is entitled to cancel the license and

notify the authority, which has issued the decision allotting these lands, to consider canceling the allotment.

Article (74):

Unless otherwise specifically provided in this law concerning the irrigation of the new lands, all the other provisions of this law govern the irrigation of new lands.

Article (75):

For the purpose of enforcing the provisions of this Chapter, the Minister of Water Resources and Irrigation shall determine by decision:
the terms and conditions for licensing the irrigation of new lands;
the costs and charges for water supply and distribution; and
establishing corporate water user associations and water boards.

PART VI GROUNDWATER

Article (76):

No groundwater well, deep or shallow, may be dug in the Arab Republic of Egypt except with license from the Ministry of Water Resources and Irrigation in accordance with such

conditions as may be determined by the Ministry. Where a well has to be dug in a land governed by the provisions of law No. 143 of 1981 concerning the desert lands, there must be issued a license by the Ministry of Water Resources and Irrigation. No contractors, companies, or individuals engaged in digging groundwater wells may contract to dig wells without license from the Ministry of Water Resources and Irrigation.

Article (77):

A person licensed to dig a well may not violate the license conditions concerning the use of the well or exceed the rates and quantities of the licensed water.

Article (78):

A license to use a well is issued and renewed by the local competent general department.

Article (79):

A license to use a well is withdrawn or cancelled if the well is not used within three years from the date the license is issued or if the well is used for purposes other than those for which the license is issued.

Article (80):

The Minister of Water Resources and Irrigation shall regulate by decision the procedures, methods, and conditions for digging wells.

Article (81):

The Minister of Water Resources and Irrigation shall regulate by decision the methods to be adopted by the Ministry in managing and using the wells by way of establishing corporate water boards and water user associations.

Article (82):

The Minister of Water Resources and Irrigation shall define by decision the wells and *mesqas* for which charges are collected for their erection, management, and maintenance.

Article (83):

There is hereby created a Special Fund for:
financing the erection of groundwater wells;
supervising the distribution of well water to the desert;
increasing awareness about groundwater conservation; and
assisting the respective user associations and water boards in well management; water distribution; and well maintenance, replacement, and rehabilitation.

The Minister of Water Resources and Irrigation determines by decision the Fund's regulations, resources including determined admissions, line-up of the Board of Directors, and By-laws.

PART VII
CHARGES OF PUMPS
AND WATER-LIFTING MACHINES

Article (84):

The Minister of Water Resources and Irrigation shall by decision determine the charges to be paid for irrigating and draining water by the State's pumps and machines unless the land tax is estimated on the basis of the free of charge use of irrigation and drainage facilities.

Article (85):

The Minister of Water Resources and Irrigation shall by decision determine the charges to be paid for irrigation by the licensed special machines erected on groundwater wells or on the Nile or public canals or drains including the booster pumps, private *mesqas*, and the charges for drainage by using lifting machines. No charges may be collected in excess of the fixed charges. If excess charges are collected, they must be refunded. Excess charges can be proved with adequate evidence regardless of the disputed amount.

Article (86):

A person licensed to use or exploit the water of the Nile, canals, groundwater wells, reservoirs, or flowing springs for purposes other than

agricultural purposes whether for transportation or navigation or industrial activity or generating electricity or drinking or any other purposes shall pay a fee for maintaining, operating, and managing the utility in accordance with such rules and rates as may be determined by the Minister of Water Resources and Irrigation. A person licensed to drain water resulting from an activity other than the agricultural activity into the Nile or groundwater or drains shall pay such charges as may be determined in accordance with rules and rates laid down by decision of the Minister of Water Resources and Irrigation.

Article (87):

A user of a groundwater well or a lifting machine may not cease to irrigate or drain water from the lands for which a license is issued and may not, unless there are serious reasons accepted by the Ministry, cease to use such wells or the machines licensed for this purpose.

Article (88):

Where the provisions of the previous article are violated, the competent general manager may entrust the well or the lifting machine temporarily with a person designated for this purpose at the licensee's expense and the persons concerned may complain of such

decision to the Minister of Water Resources and Irrigation who has only thirty days to decide on the complaint, otherwise, the complaint is deemed rejected.

PART VIII PROTECTION OF WATER RESOURCES, STRUCTURES, NAVIGATION, AND SHORES

Chapter 1 Protection from High Water Level Threats

Article (89):

The Minister of Water Resources and Irrigation may, by decision, declare a State of Emergency where an event occurs requiring implementing works for urgent protection in accordance with the emergency plan laid down by the Ministry of Water Resources and Irrigation for fending off the water threats and protecting the dams, reservoirs, and embankments. Examples of these events are where:

The water level reaches abnormal height;
Abnormal flood occurs;
The groundwater surges under high pressure;
or
Water structures or embankments collapse.

Article (90):

Where a State of Emergency referred to under the previous article occurs, the competent general manager may call strong men between 18 and 50 years of age to participate in watching and observing the Nile embankments, public canals, public drains, and flood plains; filling in the resulting cracks of these embankments; and implementing the necessary works for protecting the embankments and other water resources from such danger. The chiefs of police departments shall take the necessary measures to facilitate the mobilization of these persons and transporting them to the sites where there are dangers of water floods. The Minister of Water Resources and Irrigation determines by decision the appropriate remuneration for the persons assigned to help.

Article (91):

Where there is a risk of water outflow, each engineer assigned to supervise the watch and observation of the embankments and the water resource installations may immediately request the chief of the police department in his governorate to call the persons referred to under the previous article without need for the Minister of Water Resources and Irrigation to announce by decision a State of Emergency provided that the Ministry is so notified.

Where a danger occurs and in the absence of superior officials, the mayor or acting mayor may call such persons in his town to provide the needed assistance to fend off the danger from an adjacent town, but the mayor shall immediately report to the chief of the police department in his governorate; the chief of the county police department or of the local police station; and the competent general department which shall so notify the Ministry.

Article (92):

The competent engineer authorized to act under the previous article may temporarily take possession of any land or tools; dig any holes; demolish any buildings; cut any trees; or eradicate any plants but the Ministry of Water Resources and Irrigation shall pay appropriate damages for such act.

Chapter 2

Protection of Water;

Removing Obstacles of

Irrigation, Drainage, and Navigation

Article (93):

No person may:

Waste or squander water resources by draining water into a private drain or a public drain, an

uncultivated land; a land not licensed to be irrigated; or by using an unlicensed method of irrigation; thereby, misusing water; or by using more water in lands not licensed to be cultivated by rice or any other water-consuming crop.

Drain into the High Dam Lake whether from the lands, installations, or cruising river units.

Transport toxic or hazardous materials by river transportation units through the navigation waterways.

Inject liquid wastes or dump solid scrap; thereby, polluting the groundwater.

Establish fish farms and breeding boxes in the Nile stream and its branches extending to Edfina and Faraskour barrages, or in the main canals, public canals, and freshwater lakes.

Erect installations in the flood plains.

Drive wedges to link nets on the embankments of a public canal, a public drain, or in their beds; or on the embankments of a barrage basin, a water lock; a bridge, or a dam erected on the Nile; or in any other canal or public drain or flood plain.

Obstruct the course of water in a public canal, a public drain, a flood plain, or make any other work that would affect the balances.

Open or close any water lock, barrage, or any other works intended to balance the movement of the current water, which are erected in a public canal, a public drain, or on the embankments of the Nile, a public canal, or a public drain.

Cause any damage to an industrial work of the Ministry of Water Resources and Irrigation.

Break the Nile embankments, public canals, public drains, or flood plains.

Dig in the Nile embankments, public canals, public drains, or flood plains or in their beds, or in the slopes or berms of any of these embankments.

Move earth or stones or any other materials or equipment from the Nile embankments, sides, or berms; or from the embankments of a public canal, a public drain, a flood plain, or from an industrial work or any other work inside the public properties pertaining to the water resources.

Throw mud or dust or any other material in a public canal, a public drain, or on their embankments; or on the embankments of the

Nile or flood plains; or making any works that would affect the quality of the surface or groundwater.

Article (94):

The following acts may not be done except with license from the Ministry of Water Resources and Irrigation:

Drain into a public canal, a public drain, groundwater, or a flood plain.

Irrigate lands with the water of agricultural, sanitary, or industrial drainage insofar as this is consistent with Law No. 48/1982 concerning protecting water streams and Law No. 4/1994 concerning Environment Protection and the regulations and decisions of both laws.

Dig groundwater wells to use their water in irrigation, drinking, industrial activity, or in any other purposes.

Drive a heavy-weight moving machine on the embankments or industrial works of the Ministry of Water Resources and Irrigation if this would cause damage to the embankments or industrial works.

Article (95):

Where a barrage erected on the Nile, a public drain, or a public canal is blocked or fails to function because of lack of water in any of the above-said streams or due to the maintenance works of the water installations, the owner of a boat or of the cargo thereof may not claim damages from the government for such delay.

Article (96):

Where a boat collides, sinks, or fails to move because of lack of water in the navigation route, the owner or captain thereof shall immediately so notify the nearest police station, which shall make a report to establish the state of the boat and its cargo. The report is then sent to the competent general department, which shall instruct the boat owner, cargo owner, or the boat captain to remove the boat or its debris within three days, otherwise, the department takes this action.

If the competent general department finds that it is in the public interest to remove the boat or its debris immediately, it may do so without being restricted to the previous procedures and no damages may be claimed from the State for any damage caused to the boat or the cargo thereof during its removal by the competent general department. In all cases, the boat owner and the cargo owner are jointly liable for paying to the competent general department the removal's cost and the department is

entitled to seize the boat and its cargo in guarantee to obtain these costs for such period as it may determine, or it may sell the boat and/or its cargo by public auction.

Article (97):

No floating house of any kind whatsoever may be anchored on the coast of the Nile or any branch thereof, or in a public canal, or a public drain, or any public stream and no ferryboat may be used for transport except if specifically licensed by the Ministry of Water Resources and Irrigation in accordance with such conditions as it may determine.

Chapter 3

Sea shore Management and Protection

Article (98):

Without prejudice to law No. 4 of 1994 concerning environment protection, no installations may be erected on the coasts along the Mediterranean Sea, Red Sea, Gulf of Suez, or the western coast of Aqaba Gulf for a distance of two hundred meters wide in land from the coastal water line except with license from the General Egyptian Authority for Coast Protection.

Article (99):

The General Egyptian Authority for Coast Protection shall define the final prohibition line in view of its studies in this respect. Once the line is defined, it becomes the final line and may not be violated by erecting any installations. The prohibition provided under Article (98) continues in force until the Authority determines the final line and all bodies concerned are so notified. The line stated under Article (98) is, then, cancelled.

Article (100):

In case of great emergency where it is necessary to erect installations of a special nature inside the prohibition area referred to under Article (98) a prior approval by the General Authority for Coast Protection is required. An approval licensing the erection of an installation must determine the required protection works, and the due fees provided in the executive regulations of this law must be paid.

PART IX PENALTIES

Article (101):

Without prejudice to any tougher penalty provided in the penal code or any other law, the violation of this law is punishable by the penalties described under the following articles:

Article (102):

A person who is in breach of Articles (4-c), (8), (20), (49), (61), (94), and (93-7) is punishable by a fine of a minimum of 500 Egyptian pounds and a maximum of 3000 Egyptian pounds and in case of recidivism, the penalty is doubled. A person who is in breach of Article (97) is punishable by the fines provided under Article (102) with suspending the involved activity pending licensing.

Article (103):

A person who violates a provision provided under Articles (10), (19), (37), (46), (47), (48), and section 1 of Article (93) and Article (96) is punishable by a fine of a minimum of 1000 Egyptian pounds and a maximum of 3000 Egyptian pounds.

Article (104):

A person who violates the provision of Article (9) by cutting trees and palms without license from the Ministry of Water Resources and Irrigation is punishable by a fine of a minimum of 30 Egyptian pounds and a maximum of 200 Egyptian pounds.

Article (105):

A person who violates a provision provided under Articles (24), (25), (41), (44), (45), (52), (68), (85), and (87); sections 5, 6, 8, 9, 10, 11, 12, 13, and 14 of Article (93); and the decisions issued in accordance with Article (54) is punishable by a fine of a minimum of 5000 Egyptian pounds and a maximum of 10000 Egyptian pounds.

Article (106):

A person who violates the provision of Article (36) is punishable by a fine of a minimum of 1000 Egyptian pounds and a maximum of 5000 Egyptian pounds per feddan or a fraction of feddan.

Article (107):

A person who violates the provision of Article (76), and sections 2, 3, and 4 of Article (93) is punishable by a fine of a minimum of 10000 Egyptian pounds and a maximum of 50000

Egyptian pounds. The violation of Article (77) is punishable by a fine of a minimum of LE 1000 and a maximum of LE 5000. Imposing the penalties provided for the violation of Articles (76) and (77) and section 2 of Article (93) does not prejudice the right of the Ministry of Water Resources and Irrigation to make restitution at the violator's expense.

Article (108):

A person who violates the provision of Article (72) is punishable by a fine of a minimum of 10000 Egyptian pounds whether the violator is a landlord, a landholder, or a squatter.

Article (109):

The engineers of the Ministry of Water Resources and Irrigation designated by a decision of the Minister of Justice with the consent of the Minister of Water Resources and Irrigation have, each within his respective jurisdiction, the capacity of law enforcement officers in respect of the crimes provided in this law, which occur in their respective jurisdictions.

Article (110):

Where there is a trespass on the installations of the water resources, the engineers of the Ministry of Water Resources and Irrigation

may within the limits of their respective jurisdictions order restitution by the trespasser or the beneficiary of this trespass within such time as they may determine. If the trespasser fails to make restitution, the Ministry makes restitution at the expense of the trespasser or the beneficiary after so notifying him by registered mail, and in case of emergency, by a signal served by the local police station provided that these procedures are established in a report on the violation written by the competent engineer.

If the trespasser or the beneficiary does not make restitution within the specified period, the competent general manager removes by an administrative decision the trespass without prejudice to the penalties provided in this law. The trespasser or the beneficiary is notified of the cost of restitution and shall pay such cost within one month from the date he is so notified, otherwise, the Ministry of Water Resources and Irrigation collects the same by way of administrative attachment.

Article (111):

A person who violates the provisions of Articles (98), (99), and (100) of this law is punishable by imprisonment or a fine of a maximum of 50000 Egyptian pounds and the enforcement of the penalty may not be stayed. In all cases, the violating works must be

stopped by administrative way at the violator's expense and the machines, tools, and equipment used in committing the violation must be seized without having to wait until a judgment is delivered on the case. If a violator is found guilty, the competent court may forfeit the machines, tools, and equipment used in committing the violation.

Article (112):

Without prejudice to the penalties determined in this law, a person who violates the license conditions for irrigating new lands shall pay damages for the quantities of water used in excess of the authorized quantities in accordance with such rules as may be determined by the Minister of water Resources and Irrigation. The damages may be claimed through administrative channels

PART X GENERAL AND FINAL PROVISIONS

Art (113):

Town and village mayors shall keep and maintain the water resource industrial works delivered to them in accordance with the conditions agreed upon between the Ministry of Water Resources and Irrigation and the Ministry of Interior and shall notify the

competent authorities of any loss of the same immediately when such loss is discovered.

Article (114):

Without prejudice to the provisions of law No. 10 of 1990 concerning the expropriation of property for the public interest and the executive regulations thereof, the disputes concerning claims for damages provided in this law are heard by a committee formed in each governorate. The Committee is presided over by a judge delegated by the chief judge of the court of first instance in the respective governorate and comprises the deputy heads or acting deputy heads of the competent general department, the land registry office, and agriculture department in the respective governorate in addition to a representative of the governorate selected by the respective governor. The meeting of such Committee is valid only if attended by its chairman and at least two of its members. The Committee's decision is issued within one month from the date of its first session by a majority vote and in case of equal vote, the chairman has a casting vote. The Committee's decisions may be challenged before the competent court of first instance, but the challenge does not result in the suspension of the decision enforcement.

Article (115):

The capital of the Restitution Fund created under Article 103 of law No. 12 of 1984 concerning irrigation and drainage, before the law is repealed, is increased to ten million Egyptian Pounds (L.E. 10.000.000). The Fund is allocated to cover restitution costs if the beneficiary fails to make restitution. The entire fees, fines and indemnities decided pursuant to this law accrue to the Fund.

The Minister of Water Resources and Irrigation determines by decision the Fund's regulations, the line-up of its board of directors, and its By-laws.

Article (116):

All the amounts of money which fall due to the State under the provisions of this law have precedence right on the debtor's property pursuant to the provisions of Article 1139 of the civil code but such debt rank second after the court's cost and is satisfied by way of administrative attachment.

Article (117):

The Minister of Water Resources and Irrigation shall determine by decision the rules regulating cost sharing by water users for installing water projects and structures.

Article (118):

A Committee to be established within the jurisdiction of each *Mahkama Guz'eya*, or a court of summary jurisdiction, decides on the crimes contained in this law. The committee is chaired by the court judge and comprises the competent works manager selected by the undersecretary for Water Resources and Irrigation in the respective governorate; a member of the respective municipal council selected by the head of municipal unit in the respective governorate; a police officer selected by the director of the police department in the respective governorate; and a member of a water board or a water users association selected by the undersecretary for water resources and irrigation in the respective governorate. The Committee issues its decision after hearing the persons it may think necessary within one month from the date of its first session.

Article (119):

The provisions of the Law No. 48 of the year 1982 concerning the protection of the Nile River and the water streams from pollution are an integral part of this Law.

EXPLANATORY NOTE OF A DRAFT LAW CONCERNING WATER RESOURCES

Every day cries for conservation of every drop of water are increasing with the world about to suffer from a shortage in freshwater. The situation in the Middle East is even more complicated with limited water resources available, growing population, and increasing urban, agricultural, and industrial expansion. As a result, the demand on water is increasing every year. This compels us to apply advanced appropriate technologies to conserve water and adopt a scientific approach to find methods for increasing our water resources.

Egypt's main fresh water comes from the River Nile. According to the international conventions, Egypt's quota from the Nile water is 55.5 billion cubic meters per annum. This quota enters the water network at the Aswan Dam and passes down through the Nile Delta until it reaches the Mediterranean Sea.

The network also receives groundwater from the western desert and Sinai plus an additional annual amount of 500 million cubic meters of water from rains, floods, recycled and treated agricultural and sanitary drainage water.

Egypt's available water, however, is exposed to seepage, evaporation, and pollution.

Therefore, the Ministry of Water Resources and Irrigation exerts great efforts to minimize the water loss and maximize the efficient use of available water.

The total water used in Egypt is an estimated 72 billion cubic meters with the agricultural activity alone consuming 60 billion cubic meters, or 83% of the total water consumption. The remaining quantity is used for drinking and industrial purposes.

The total efficiency rate of the water network at present (i.e. the percentage of the consumed water quantity to the total water network revenue) is an estimated 70%. This is a high rate if compared to the other countries. The reasons behind this high efficiency rate can be attributed to several factors; the great efforts exerted by the Ministry of Water Resources and Irrigation to operate and maintain the water network; the efficient use of water in most of the Delta and Valley lands; and the present practices of intensive recycling of wastewater estimated at 18 billion cubic meters/a year.

With the Ministry's objectives focused on water resource development, control, and regulation by all available means, the Ministry's name was changed into the Ministry of Water Resources and Irrigation to reflect this new philosophy.

It was also necessary to amend the laws governing irrigation and drainage management with their insufficient rules, especially, law No. 12 of the year 1984 Concerning Irrigation and Drainage. Indeed, there is a need to formulate new rules to regulate the improved irrigation and drainage systems and to try to find solutions for the encountered problems and limit their aggravation. These problems can be outlined as follows:

The limited quota of water Egypt receives annually from the River Nile; the main water resource of the country.

The decline of water resources as a result of the excessive use; illegal disposal of both human and industrial wastewater; and dumping solid wastes and garbage in groundwater or fresh-water streams.

Continuous encroachment against the public properties pertaining to the water resources and the irrigation and drainage related-works. This also includes non-compliance with the obligations related to the rights to use the sources and methods of private irrigation and drainage, and failure to enforce the applicable laws to achieve public or private detriment among the people of the community.

The government diligently endeavors to provide the necessary water resources for different uses and to increase the agricultural productivity from the available water in order to achieve food security. To this end, the State exerts great efforts to:

Preserve the existing agricultural lands and limit encroachment against these lands.

Reclaim desert lands and add new areas to the farmlands in Egypt. It was for this purpose that the State has launched projects for desert reclamation in the southern valley, western Suez Canal, northern Sinai, and western Delta.

Minimize cultivating water-consuming crops.

Implement projects for agricultural drainage.

There is no doubt that the successful implementation by the State of these projects depends on good planning. It also requires that the State should supervise the implementation of irrigation and drainage projects and all other uses of water. In addition, the State should provide the essential elements for these projects and ensure that they will continue to function properly after they are completed.

However, the current applicable laws governing the State's control of the water resources and related installations are

incapable to meet these needs in an optimum way in line with the State's economic plan.

It was against this background that it has become necessary to formulate new rules governing the State's control of the water resources and related installations and to amend the current applicable laws, particularly, law No. 12 of the year 1984 as amended.

For this purpose, a new law must be enacted to reflect the latest developments, concepts, visions, and inputs related to water management and use. The new law is intended to achieve the following objectives:

Highlight the concept of integral management of water of different sources, types, and uses including the social and economic aspects.

Develop new water resources.

Define the responsibilities and authorities of the governmental and non-governmental bodies at all central, regional, and local levels,

Encourage participation by the water users in water resource management under the supervision of the officials of the Ministry of Water Resources and Irrigation. Private companies should be encouraged to assume this function at the cost and expense of the water users themselves.

Complete the tile drainage networks so that they can reach all the existing farmlands and replace the old ones.

Expand the use of wastewater for irrigation purposes after conducting field studies to make sure that they are fit for use in their existing condition or after mixing them with freshwater.

Continue to expand the use of groundwater stock for drinking and irrigation purposes.

Keep on improving the surface irrigation system into modern irrigation systems in the old lands.

Continue to implement replacement and renovation projects; improve the performance of hydraulic installations erected on canals and drains and the water distribution systems; adjust water balances; and replace and renovate irrigation and drainage pumps after the end of their life span.

Continue to conserve the use of irrigation water and apply irrigation modern systems such as sprinkling, dripping, and other improved methods adopted pursuant to the former law No. 12/ 1984 as amended.

Benefit from the water of rains and floods.

Impose severer penalty against the violations provided in the law concerning water resources and irrigation without prejudice to the courts' right to impose such penalties as may be contained in the penal code or in any other criminal law.

In order to achieve the above mentioned targets, the Ministry of Water Resources and Irrigation has formulated the attached draft law in coordination with the governmental authorities concerned with water resources and irrigation affairs. These included the Ministry of Agriculture and Land Reclamation, the Ministry of Reconstruction, the local councils, and other concerned bodies. The remarks and comments made by the above-said bodies had been taken into consideration while preparing the proposed law. The proposed law contains 119 articles distributed over 10 parts as follows:

PART I
DEFINING WATER RESOURCES AND
WATER USES;
PUBLIC PROPERTIES
PERTAINING TO WATER RESOURCES

This Part contains 18 articles distributed over 3 chapters as follows:

Chapter 1: Defining Water Resources and
Water Uses (Articles 1 – 2):

According to Article (1), “Water Resources” means limited natural resources with social, economic, and environmental dimensions having the status of public property. The Ministry of Water Resources and Irrigation is authorized to manage and develop the water resources in all possible means; and to control and regulate their uses.

This definition is new. The previous laws concerning irrigation and drainage did not contain any definition of the water resource but most of these laws only cited or enumerated some of these resources as part of the list of public properties pertaining to irrigation and drainage.

According to Article (2-a), water resources in use are: the River Nile water; rainwater and floodwater; deep groundwater; desalinated water; and any freshwater from unconventional

sources. For the purposes of the present law, the water resources include the agricultural drainage water; the treated industrial and sanitary drainage water; and the shallow groundwater.

It is obvious from the previous enumeration of water resources contained under Article (2) that the criterion adopted by the draft law concerning water resources is that the water must be fresh and fit for water use.

According to Article (2-b), the water uses include: irrigation; drinking and human uses; industry; in-stream transportation and river navigation; generation of hydroelectric power; and tourism activities and environment support.

Chapter 2: Public and Private Properties Pertaining to Water Resources (3-9):

In this Chapter, some lands and basins are added to the public properties pertaining to the water resources described in the previous law. These include:

- The Aswan Dam Lake basin;
- Tushka depression basin;
- Any other basins formed as a result of building dams or reservoirs;
- The lands, 200 m. wide, located alongside the northern coastal line of the State, the Red Sea,

the Suez Gulf, and the western side of Aqaba Gulf;

The lands acquired as a result of establishing protection projects or for any other natural reasons;

The lands surrounding the groundwater wells as may be designated by the Ministry of Water Resources and Irrigation; and

The lands where the Ministry conducts artificial water recharge (Article 3).

According to Article (4), no person may without license from the Ministry of Water Resources and Irrigation execute in the said lands any work or dig any holes therein that would endanger the safety of the water streams. The competent engineer of the Ministry of Water Resources and Irrigation is authorized to enter the said lands to inspect the works that are being executed.

The draft law fully authorizes the Minister of Water Resources and Irrigation to take the necessary measures to complete the constructions of canals and public drains. The Minister is also authorized to deem private feeders (*Mesqas*) or private drains as public properties if they are directly connected to the River Nile, public irrigation canals, drains, or lakes (Article5).

According to the draft law, the Ministry of Water Resources and Irrigation may coordinate

with the other concerned public or private bodies in respect of supervising the public properties pertaining to the water resources. However, these bodies, must act under the full control and supervision of the Ministry of Water Resources and Irrigation and may permit the use of the part under their control only with permission from the Ministry of Water Resources and Irrigation (Article 6).

To cultivate a land owned by the State, which is located within the public properties pertaining to water resources, or to establish a jetty on the Nile banks, public canals or public drains, a license must be obtained from the Ministry of Water Resources and Irrigation (Article 8).

Chapter (3): Private Works in the Public Properties Pertaining to Water Resources (10 – 18)

In this Chapter, the proposed law seeks to enable the public properties to carry out their functions in accordance with the general plan of the Ministry of Water Resources and Irrigation. It also tries to limit the effects of private works erected inside these properties and to put such works under the full control of the Ministry.

Therefore, the proposed law permits performing or modifying such works only by

license from the Ministry of Water Resources and Irrigation in accordance with such conditions as the Ministry may determine. It also requires for such works to be performed or modified that certain fee, to be determined by the Minister of Water Resources and Irrigation, be paid upon licensing (Article 10).

The draft law authorizes the Ministry of Water Resources and Irrigation to cancel a license for such work or deem the licensed work, upon the end of the license period, a public property of the State. If the license is cancelled after the end of its period, no compensation is paid. If the license is cancelled before the end of its period, the licensee is compensated for the work cost in proportion to the remaining period of the license.

Under the draft law, the Ministry of Water Resources and Irrigation is bound to require that the licensee permit the owners or holders of the other lands to benefit from the licensed work if the license is intended to irrigate a land or drain water there from. The other landlords and landholders, however, must pay an appropriate part of the construction costs to be determined by the competent General Manager. The license must designate the area of the land benefiting from the licensed work. The other landlords and landholders continue to benefit from the licensed work even if new

owners or holders of these lands replace the old ones (Article 12).

According to Article (13) of the proposed law, a licensee must maintain and keep in good order and repair the licensed work in accordance with the license conditions. The licensee is also bound to make such renovation or alteration as may be deemed necessary for the public interest by the Ministry at such time and in accordance with such specifications as the Ministry may determine, otherwise, the Ministry implements the same at the licensee's expense. Where a license is issued to a group of persons, they are held jointly bound in performance and liability (Article 13).

The proposed law, however, permits the licensee to renovate or alter the licensed work only with a written permission from the Ministry of Water Resources and Irrigation (Article 14).

According to Article (15), where the license conditions are violated and the licensee does not remove the reasons of violation, the department that has issued the license may cancel the license and remove the licensed work.

The license may also be withdrawn if the State performs a work that would render the licensed work redundant. In this case, the Ministry of

Water Resources and Irrigation is authorized to issue a decision canceling or removing the licensed work without having to pay damages (Article 16).

The proposed law also binds the licensee to remove the licensed work and restitute the public property within such period as may be determined by the Ministry of Water Resources and Irrigation. Otherwise, the Ministry will do the same at the licensee's expense if the license is not renewed and the Ministry has not decided to annex the licensed works to the State's property (Article 17).

The private bridges and other water installations erected under a license by the Ministry of Water Resources and Irrigation across a public irrigation canal, drain, or flood plain are deemed public properties subject to the supervision of the Ministry upon the moment they are constructed (Article 18).

PART II ENSURING THE RIGHTS OF USE OF PRIVATE SOURCES AND IRRIGATION AND DRAINAGE STREAMS

This Part contains 13 articles (19 – 31) and corresponds to Part II of Law No. 12/1984

concerning private *mesqas* and drains and Part III concerning field drains.

The drafters of the proposed law combined Part II with Part III of Law No. 12/1984 in one part including all their provisions together with the amendments introduced thereto.

The proposed law gives the landlords using a joint private *mesqa*, a joint irrigation stream, or a joint groundwater well, the right to withdraw water from, or drain water into, them in proportion to the area of land owned by each landlord.

The draft law authorizes the local irrigation inspector to lay down the rotation schedules for this purpose. It also gives the landlords the right to complain of the inspector's decisions to the competent general manager who is authorized to decide finally on such complaint and his decision is deemed final. The competent general manager is authorized to hear any conflict that may arise from the way the said right of use is exercised (Article 19).

According to the proposed law, the responsibility to dredge and maintain the private *mesqas* and drains and preserve their embankments in good condition lie with the landlords. If the landlords fail to carry out this function, the competent manager may instruct them to do so. Failing this, the competent

administrative department may implement such works and collect the actual costs thereof by administrative ways from the landlords in proportion to the land area each of them owns including the damages for each land occupied because of such works (Articles 20 and 21).

Being an important source of water, the groundwater wells were added, in Article (29), to the private *mesqas* and drains, which a competent general manager may decide to block, stop their use, remove, or deem useless where there is another source for irrigation or drainage. There is no doubt that adding the groundwater wells to the water resources is in conformity with the approach of the Ministry's general plan and its efforts to conserve the water use.

The proposed law binds the users of private *mesqas*, drains, or groundwater wells to take, at such date as may be determined by the competent general manager, the necessary action to prevent the damage resulting from their *mesqas*, drains, or groundwater wells. Failing this, the competent general department may take such action at their expense (Article 29).

To cope up with the technological development of irrigation and drainage systems, the draft law made the provisions of this Part applicable to the joint improved systems of irrigation and

drainage including the groundwater wells (Article 30).

PART III WATER DISTRIBUTION

This Part contains 24 articles distributed on 3 chapters as follows:

Chapter (1): Water Management and Water Distribution Regulation (32 – 36)

According to Article (32), the Ministry of Water Resources and Irrigation is responsible for water management, regulation, and distribution for all uses from all sources on private intakes and openings. The Ministry may determine or modify the systems of water resource use to fit the purpose of such use. The Ministry also determines all the methods to be adopted for water management and distribution.

The Ministry of Water Resources and Irrigation regulates the method of participation by the farmers and water users and makes available the private and government funding necessary for construction, replacement, rehabilitation, operation, and maintenance works of irrigation and drainage-related networks. The Ministry regulates, in particular, the formation of corporate water users

associations in both the old and new lands for private or public irrigation networks. It also regulates the formation of corporate water boards in certain lands of specific geographical borders and public water sources. The Minister of Water Resources and Irrigation or whomever the Minister may delegate establishes by decision such water users associations and water boards as provided in the Executive Regulation of this Law (33).

To catch up with the economic development in Egypt, Article (34) of the proposed law authorizes the Ministry of Water Resources and Irrigation to entrust a specialized company, or an association, or a water board to construct, manage, operate, and maintain, at their expense, parts of:

- Irrigation and drainage networks;
- Groundwater wells;
- Joint reservoirs and dams;
- Improved irrigation systems; or
- Tile drains.

To ensure that water is fairly distributed, the draft law authorizes the competent general manager, where the public interest so requires, to prevent at any time even during on-periods taking water for irrigation from a certain public canal or groundwater well or to prevent the excessive use or wasting of water by farmed lands (Article 35).

In addition to the rice crop, which consumes great quantity of water, the draft law also cites other water-consuming crops. Therefore, the proposed law prohibits cultivating such crops except with license from the Ministry of Water Resources and Irrigation provided that such crops and the cultivated areas are designated by decision by the Minister of Water Resources and Irrigation after consulting the Minister of Agriculture and Land Reclamation (Article 36).

Chapter 2: Water Intakes and Drain Outflows (37 – 43)

To preserve the State's water resources, the draft law prohibits the erection of any water intakes, regardless of their purposes, particularly on the Aswan Dam Lake or the River Nile except by license from the Ministry of Water Resources and Irrigation. The reason behind inserting the Aswan Dam Lake is due to the importance attached to this lake as a strategic reservoir for freshwater and for providing the desert reclamation projects with the necessary water (Article 37).

Chapter 3: Water-Lifting Machines (44 – 55)

No pump or equipment driven by a fixed or mobile mechanical automated device or by any other method may be erected or operated to lift water from a water resource for any of the

designated water uses without license from the competent general department. The license applicant must pay such fee as may be determined by a decision of the Minister of water Resources and Irrigation (Article 44).

The proposed law has cancelled the 10-year ceiling determined by Article 49 of the previous law No. 12/1984.

PART IV DEVELOPING AND IMPROVING IRRIGATION AND DRAINAGE SYSTEMS

The provisions of this Part were introduced into the draft law to reflect the trend to develop and improve the existing irrigation and drainage systems. This Part contains 14 articles distributed on 2 chapters as follows:

Chapter 1: Developing Surface Irrigation Systems (56 – 61)

The draft law links the provisions of this chapter with the provisions of Part II protecting the rights of use of the private sources and private irrigation and drainage streams. The draft law requires for the application of the provisions of this Chapter that they should not affect the provisions of Part II of this draft law (Article 56).

According to Article (57), the Minister or Water Resources and Irrigation or whomever he may delegate defines by decision the command areas where private *mesqas* must be developed by applying improved irrigation systems in accordance with the field technical and social studies conducted by the Ministry's Division for Irrigation Improvement. The Ministry's decision is binding by operation of law to all the parties involved in the improvement process including the farmers, the landlords, and the landholders. The Minister of Water Resources and Irrigation may, by decision, take possession temporarily of the lands necessary for constructing the improved irrigation network and may, in accordance with Law No. 10/1990 concerning Expropriation for Public Interest, take actions for the expropriation of such lands.

The Minister of Water Resources and Irrigation regulates by decision the methods of managing and using the improved irrigation systems in the old lands in which these systems are to be adopted by establishing corporate water user associations and water boards (Article 58).

The owners of these old lands shall bear the costs of improving the private *mesqas* and their contents on pro rata basis as per the number of feddans each owns and in accordance with the rules described under Article (64) of this draft law (Article 59).

Under the proposed law, the Special Fund for financing the projects for the development and maintenance of the improved *mesqas* in the old lands will continue to perform its functions. The Fund is created by virtue of Article (36), bis (1), of the law No. 12/1984 as amended by law No. 213/1994. The Minister of Water Resources and Irrigation determines by decision the rules regulating the Fund's financial policy, and the formation of its board of directors made up of representatives of the water users associations and water boards (Article 60).

The draft law provides the water user associations and water boards with the necessary protection in respect of the private pumps they use. More important, The draft law prohibits the use of any pumps on the improved *mesqas* other than the private pumps used by the water users associations (Article 61).

Chapter 2: Improving and Developing Drainage Systems (Articles 62 – 69)

According to the draft law, the Minister of Water Resources and Irrigation may by decision temporarily take possession of the lands necessary for the construction of the open and tile drainage network. The Minister also may take the necessary procedures to

expropriate the ownership of these lands in accordance with the provisions of Law No. 10/1990. The cost of the erection and renovation of the network of the tile field drains and the open or tile drain collectors are divided on all the lands located in the drainage unit (Articles 62 and 63), in accordance with the terms and conditions described under Article (64).

According to the draft law, the Administration's estimation of the costs and the parts to be paid by each landlord of these costs are final only after the lapse of challenge deadlines. Complaints must be filed first with the competent inspector at the local land registry office and, then, are decided on by a committee formed for this purpose. The Committee is chaired by the competent inspector or acting inspector of the local land registry office and comprises representatives of the Ministry of Agriculture and the local cooperative; a specialist from the local land registry office, and an engineer from the Ministry of Water Resources and Irrigation. The Committee's decision may be challenged before the competent court of first instance but the challenge does not give rise to the suspension of the enforcement of the decision (Article 64).

The proposed law assigns to the drain user associations the function of performing the

periodic and general maintenance of the tile drainage networks within the boundaries of the drain collector, otherwise, the competent general department carries out such maintenance. In this case, the competent general department collects, by administrative means, the actual costs from the landlords in proportion to the area each owns of the land benefiting from the drain collector plus appropriate damages for the land occupied because of such maintenance (Article 67).

The draft law prohibits tampering with, or causing damage, to the industrial works of both tile field drain network types. Regardless of the penal code provisions, the competent engineer must prove any violation of any provision of Article (68). If the violator's act causes damage to a third person, the competent engineer may instruct the violator to restitute the thing subject of the violation within such short period as the engineer may determine, otherwise, the competent general department makes restitution at the violator's expense.

The draft law creates a Special Fund to implement and supervise the tile drain projects. The Fund's resources are obtained from the appropriations allocated in the State's general budget; the proceeds of loans, grants, and installments paid by the landlords; and the Fund's investment returns. The Minister of Water Resources and Irrigation determines by

decision the rules regulating the Fund's financial policy and the formation of its board of directors made up of representatives of the associations of the users of tile drain collectors (Article 69).

PART V IRRIGATION OF NEW LANDS

This Part contains 6 articles beginning with Article (70) and ending with Article (75).

The draft law defines “New Lands” as every land not previously licensed to be irrigated (Article 70).

In order to preserve and conserve the State's water resources and to prevent wasting much quantities of water uselessly, the draft law provides that no land may be sold or allotted for horizontal agricultural expansion or agricultural development purposes by any ministry or body to any individual or group or company or association except after indicating the purpose of sale or allotment and after the Ministry of Water Resources and Irrigation determines that there are enough sources of water to irrigate and cultivate such land. The Ministry may determine the quantities of water necessary for the other activities; such as industrial, commercial, tourist, or other purposes (Articles 71 and 72).

The license to irrigate the new lands is issued by the Minister of Water Resources and Irrigation or whomever he may delegate (Article 73). Unless otherwise specifically provided in the draft law concerning the irrigation of the new lands, all the other provisions of the draft law apply to the irrigation of new lands. For the purposes of enforcing the provisions of this Part, the Minister of Water Resources and Irrigation defines by decision:

The terms and conditions for licensing the irrigation of new lands;

The costs and charges for water supply and distribution; and

Establishing corporate water users associations and water boards (Article 74 - 75).

PART VI GROUNDWATER

This Part contains 8 articles from Article 76 to Article 83.

Groundwater is an important water source, especially in deserts and areas with no surface water network. For this reason, Part VI is devoted entirely to groundwater.

According to Article (76), no deep or shallow groundwater well may be dug in the Arab

Republic of Egypt except with license from the Ministry of Water Resources and Irrigation in accordance with such conditions as may be determined by the Ministry even if that well has to be dug in a land governed by the provisions of law No. 143 of 1981 concerning the desert lands. It makes no difference if those engaged in digging the groundwater well are ordinary citizens, contractors, or companies (Article 76).

A person licensed to dig a well must comply with the license conditions concerning the well use and the determined rates and quantities of water. The license to use the well is issued and renewed by the local competent general department (Articles 77 and 78).

The license to use the well is withdrawn or cancelled if the well is not used within three years from the date the license is issued or if the well is used for purposes other than those for which the license is issued. The Minister of Water Resources and Irrigation regulates by decision the procedures, methods, and conditions for digging wells (Articles 79 and 80).

The Minister of Water Resources and Irrigation regulates by decision the methods to be adopted by the Ministry in managing and using the wells by way of establishing corporate water boards and water user associations. The

Minister of Water Resources and Irrigation also defines by decision the wells and *mesqas* for which charges are collected for their erection, management, and maintenance (Articles 81 and 82).

The draft law creates a Special Fund to finance the erection of groundwater wells, control the distribution of its water, and increase awareness about groundwater conservation (Article 83). This is a new article in its vision and approach. The Minister of Water Resources and Irrigation determines by decision the Fund's regulations, line-up of its board of directors, by-laws, and resources.

PART VII CHARGES OF PUMPS AND WATER-LIFTING MACHINES

This Part contains 5 articles from Article 84 to Article 88.

According to the draft law, the Minister of Water Resources and Irrigation determines the rates for using the State's pumps and water-lifting machines (Article 84).

The draft law, however, requires that no charges be collected in excess of the fixed charges. If excess charges are collected, the extra excess must be refunded. Excess charges

can be proved with adequate evidence regardless of the disputed amount (Article 85).

According to the draft law, a person licensed to drain - into the Nile, groundwater, or public drains - water resulting from an activity other than the agricultural activity is bound to pay such charges as may be determined in accordance with the rules and rates laid down by decision of the Minister of Water Resources and Irrigation (Article 86).

The draft law also binds the user of a groundwater well or a lifting machine to irrigate, and drain water from, the lands for which a license is issued. The user may not, unless there are serious reasons, cease to use such wells or the machines licensed for irrigation or drainage purposes (Article 87).

PART VIII PROTECTION OF WATER RESOURCES, STRUCTURES, NAVIGATION, AND SHORES

This Part, corresponding to Part V of the previous law No. 12/1984, contains 12 articles distributed on 3 chapters as follows:

Chapter 1: Protection from High Water Level Threats (Articles 89 – 92)

According to the draft law, the Minister of Water Resources and Irrigation may, by decision, announce the State of Emergency if there are risks threatening the safety of dams, reservoirs, or embankments; thus, requiring implementing urgent protection works in accordance with an emergency plan laid down by the Ministry of Water Resources and Irrigation.

Chapter 2: Protection of Water; Removing Obstacles of Irrigation, Drainage, and Navigation (articles 93 – 97)

Article (93) prohibits works that may affect the water resources. No person may waste or squander water. In view of the great importance attached to the Aswan Dam Lake as it provides all the parts of the country with water, the draft law prohibits draining into the

Aswan Dam Lake whether from the lands, installations, or cruising river units.

Article (93) also prohibits transporting toxic or hazardous materials by river transportation units through the navigation waterways. In addition, it prohibits injecting liquid wastes or dumping solid scrap polluting the groundwater.

As regards establishing fish farms, the draft law prohibits establishing fish farms or breeding boxes in the Nile stream and its branches extending to Edfina and Faraskour barrages. The draft law also prohibits establishing installations on the flood plains, and setting up any works that would affect the water environment (Article 93).

According to Article (94), the Ministry of Water Resources and Irrigation is authorized to license certain works. Some of these works are already provided in Law No. 12/1984. The draft law, however, introduces additional works, which must be licensed. These include: irrigating lands with drainage water; draining into a public drain, a groundwater well, or a flood plain; digging groundwater wells to use their water in irrigation, drinking, or industry; and driving river transportation units, passenger transports, floating hotels, or ferry boats. In all cases, the permitted tonnage, the navigation route, and the captains' efficiency must be observed.

Chapter 3: Sea Coast Management and Protection (Articles 98-100)

The draft law prohibits, without affecting law No. 4 of 1994 concerning environment protection, the erection of installations on the coasts along the Mediterranean Sea, Red Sea, Gulf of Suez, and the western coast of Aqaba Gulf for a distance of two hundred meters wide in land from the coastal water line except with license from the General Egyptian Authority for Coast Protection (Article 98).

The draft law did not neglect the cases of high emergency, which require establishing installations of a special nature inside the prohibition area described in Article (98). But, in such cases, the General Egyptian Authority for Shore Protection must approve such works in advance, defining the protection works necessary for that installation. Protection works, however, are made against fees to be determined by the executive regulations of the draft law.

PART IX PENALTIES

This Part contains 12 articles (101 – 112) and addresses the penalties applicable in case of violation of the provisions of the draft law.

But, the application of the provisions of this Part must not affect any tougher penalty provided in the Penal Code or any other law.

The draft law seeks to achieve the highest possible deterrence to the individuals and persons governed by, or violating, its provisions. It was for this purpose that the draft law:

Raises the fines imposed under the penal clauses contained in the draft law (Articles 102 – 108);

Toughens the penalties in case of recidivism (Article 102);

Link the fine amount to the number of feddans subject of some violations (Article 106);

Authorizes the Ministry of Water Resources and Irrigation to make restitution at the violator's expense in some cases in addition to imposing the determined penalty (Article 110);

Punishes the violator no matter if he is a landlord, a landholder, or a squatter in case of violation of the provisions of certain articles (Article 108); and

Determines a maximum fine of LE 50,000 in case of violation of the provisions of Articles 76 and 93.

PART X

GENERAL AND FINAL PROVISIONS

This Part contains 7 articles (113- 119).

According to Article (113), town and village mayors are bound to keep and maintain the industrial works related to the water resources entrusted to them in accordance with the conditions agreed upon between the Ministry of Water Resources and Irrigation and the Ministry of Interior. They are also bound to notify the competent authorities of any loss of these works immediately when such loss is discovered.

The draft law raises the capital of the Special Fund for Restitution concerning irrigation and drainage, before the law is repealed, from seven hundred thousand Egyptian Pounds (LE 700,000) to ten million Egyptian Pounds (L.E. 10,000,000). This Fund, created under Article 103, law 12/1984, concerns irrigation and drainage. The Fund is allocated to cover restitution costs if the beneficiary fails to make restitution. The entire fees, fines, and indemnities decided pursuant to the draft law accrue to the Fund (Article 115).

Article (117) allows the Minister of Water Resources and Irrigation to determine by decision the rules regulating cost sharing by water users for installing water projects and structures.

The draft law creates a committee in each summary court to decide on the crimes provided in the draft law. The Committee, chaired by the court judge, comprises governmental officials including a works manager selected by the Undersecretary for Water Resources and Irrigation; a municipal council member selected by the municipal unit head; a police officer selected by the governorate police department head; and a representative water user from a board or association selected by the Ministry's undersecretary for the governorate. The Committee must issue its decision within one month from the initial hearing (Article 118).

Establishing a Committee composed as described above would ensure equity because of the members' intimate knowledge of the issues. More importantly, bringing together people's organizations, executive departments, and judicial bodies in dispute settlement would ensure quick resolution based on a clear vision.

In light of the similarity between the present draft law and Law No. 48/1982 concerning Protecting Nile and Water Streams against Pollution, the latter is deemed an integral part of the present draft law on the grounds that both concern water resource preservation in quantity and quality (Article 119).

The Minister of Water Resources and Irrigation is pleased to submit the attached draft law for approval and necessary action for its enactment.

Minister,
Water Resources and Irrigation

APPENDIX B

REVISED LAW 12/1984 ON WATER RESOURCES

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**G?**

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**Q ?**

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**G?**

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**G?**

[illegible]





**G?**

[illegible]

**G?**

[illegible]

**G?**

[illegible]

Q?

$\frac{1}{\sqrt{\pi}} \int_{-\infty}^{\infty} f(x) e^{-x^2} dx = \frac{1}{\sqrt{\pi}} \int_{-\infty}^{\infty} f(x) e^{-x^2} dx$

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**G?**

[illegible]

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**G?**

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**G?**

[illegible]

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Figure 1: Schematic diagram of the experimental setup. A laser beam is directed through a series of lenses and mirrors, passing through a sample and a detector. The setup is used to measure the optical properties of the sample.

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***APPENDIX C***

***PROPOSED EXECUTIVE REGULATION FOR REVISED  
LAW 12***

**MINISTRIAL DECISION  
NO. XXX OF THE YEAR XXX  
PROMULGATING THE EXECUTIVE REGULATION  
OF WATER RESOURCES LAW  
NO. XXX OF THE YEAR XXX**

**THE MINISTER OF WATER RESOURCES AND IRRIGATION:**

Having taken cognizance of Law 38/1976 concerning agricultural lands improvement and maintenance;

And Law 73/1979 promulgating the Local Government System Law;

And Law No. 143/1981 concerning desert lands;

And Law No. 48/1982 concerning the protection of River Nile and waterways from pollution;

And Law No. 10/1990 concerning the expropriation of properties for the public interest;

And Law No. 4/1994 concerning environment protection;

And Law No. xxx of the year xxx concerning water resources;

And Presidential Decree No. 653/1980 re-organizing the Ministry of Irrigation;

And Presidential Decree No. 261/1981 creating the Egyptian General Authority for Shore Protection;

And the Prime Minister Decision No. 918/1982 deeming the River Nile a property of special character;

And Presidential Decree No. 449/1987 concerning the authorities of the Ministry of Public Works and Water Resources;

And the Minister of Irrigation Decision No. 8/1983 issuing the executive regulation of the above-said law No. 48/1982;

And the Minister of Irrigation Decision No. 124/1986 regulating the Fund created by Article (103) of the Irrigation and Drainage Law;

The Decision of the Minister of Public Works and Water Resources No. 14867/1991 amending some fees of use of the properties pertaining to the River Nile waterway;

And the Decision of the Minister of Public Works and Water Resources No. 14900/1995 implementing some provisions of the amended Irrigation and Drainage Law;

And the opinion of the State's Council,

## **DECIDED AS FOLLOWS**

### **ARTICLE (1):**

The attached provisions of the Executive Regulation of the Water Resources Law shall be applied.

### **ARTICLE (2):**

This Decision shall be published in the Egyptian Gazette and shall take effect from the date it is published.

**MINISTER OF WATER RESOURCES  
AND IRRIGATION**

**Dr. Eng. Mahmoud Abu Zaid**

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# **EXECUTIVE REGULATION OF WATER RESOURCES LAW**

## **PART I**

### **Defining Water Resources and Water Uses; Public Properties Pertaining to Water Resources**

#### **Chapter 1 Definitions**

##### **Article (1):**

The phrases “approval by the Ministry of Water Resources and Irrigation”, “decision of the Ministry of Water Resources and Irrigation”, “license by the Ministry of Water Resources and Irrigation” wherever is used in this law mean the approval or decision or license by the competent authority unless otherwise expressly provided.

##### **Article (2):**

a) The phrase “Water Resources in Use” means:

- a-1 The Nile water; i.e., the water reaching the Nasser Lake
- a-2 Rain and flood water; i.e., the water resulting from the rains falling on the Arab Republic of Egypt and causing surface stream across the valleys and flood plains insofar as they can be used.
- a-3 Deep groundwater; i.e., the water stored under ground in the western desert, the eastern desert, and Sinai peninsula, which is not fed by the surface water in the Valley and Delta.
- a-4 Desalinated water; i.e., the saline or semi-saline water desalinated to be used for different purposes.
- a-5 Water from untraditional sources.
- a-6 Shallow groundwater; i.e., the water extracted from the shallow ground wells in the Delta and the Valley, which are fed from the surface water and rains.
- a-7 Agricultural drainage water; i.e., the water reaching the drains, which can be reused in accordance with the standards provided under Law No. 48/1982 concerning protection of the River Nile and its Waterways, and Law No. 4/1994 concerning environment affairs.
- a-8 Industrial and sanitary treated drainage water; i.e., the water resulting from the factories and sanitary drainage plants, which can be reused after treatment in accordance with the standards provided under Law No. 48/1982 concerning protection of the River Nile and its Waterways and Law No. 4/1994 concerning environment affairs.

**Chapter 2**  
**Public and Private Properties**  
**Pertaining to Water Resources**

**Article (3):**

The Public properties pertaining to the water resources include:

- 3-a The River Nile stream and the embankments thereof starting from the international borders with Sudan to the outflows of Damietta and Rashid branches in the Mediterranean sea. This includes all the lands located between the Nile embankments or River training lines corresponding to the discharge of a maximum of 6.5 million cubic meters per day behind Aswan excluding the lands or establishments privately owned to the State or any person.
- 3-b The main canals, public canals, public drains and the banks thereof inclusive of the lands and the structures located between those banks unless such lands or structures are privately owned to the State or any other person.
- 3-c Flood plains (valley lands); natural or man-made plains resulting from flood flows; and structures of these plains.
- 3-d The structures controlling, distributing, and managing the water; i.e. the structures set up to balance between the irrigation water and drainage water or to protect the lands or villages from water outflows or erosion, and other man-made structures pertaining to the water resources.
- 3-e The Aswan Dam Lake basin; Tushka depression basin; Tushka spillway canal; and any other basins formed as a result of building dams or reservoirs. This specifically includes the lands located 5 kilometers from contour 184 in respect of Aswan Dam Lake basin, and contour 175 in respect of Tushka depression or located within the surroundings of the valleys.
- 3-f The lands, 200 m. wide, located, in the Arab Republic of Egypt alongside the coastal line of the Mediterranean Sea, the Red Sea, the Suez Gulf, and the western side of Aqaba Gulf; and the lands acquired as a result of establishing protection projects or for any other natural reasons.
- 3-g The lands designated by the Ministry of Water Resources and Irrigation around the groundwater wells owned by the State to protect these wells against pollution and ensure their best use. Also, the lands in which the Ministry undertakes artificial recharge of groundwater.
- 3-h The lands expropriated for the public interest to develop, manage, and use the water resources and the lands owned to the State and allotted for this particular purpose.



**Article (4):**

The lands privately owned to the State or by any other public or private persons or by certain individuals, which are located inside the embankments of the River Nile and its branches, the public irrigation canals, the public drains, or the flood plains; 30 meters wide outside the River Nile banks, 20 meters wide outside the constructions of the public irrigation canals, public drains, and flood plains; five kilometers from the banks of the Aswan Dam Lake; within the surroundings of the groundwater wells; and at the rain and flood collection areas are subject to the following restrictions for the general purposes of water resources:

The Ministry of Water Resources and Irrigation may undertake such works as it may deem necessary to protect, maintain, or rehabilitate the embankments or public structures and may take from the said lands the earth needed for such works provided that the owners of these lands are fairly compensated in accordance with Article 114 of the Water Resources Law.

The Ministry of Water Resources and Irrigation may dump into the said lands the earth produced from dredging the public irrigation canals, the public drains, and the flood plains provided that the owners of these lands are fairly compensated in accordance with Article 114 of the Water Resources Law.

No person may without license from the Ministry of Water Resources and Irrigation erect in the said lands any work or dig any holes therein.

**Article (5):**

No lands owned by the State, which are located inside the public properties pertaining to the water resources may be planted or used for any purpose except with a permission from the Ministry of Water Resources and Irrigation and in accordance with such conditions as the competent general department may determine in each individual case.

**Chapter 3****Private Works Inside The Public Properties Pertaining To Water Resources****Article (6):**

No private work may be performed within the boundaries of the public properties pertaining to the water resources and no alterations may be made in such properties except with license from the Ministry of Water Resources and Irrigation in accordance with such conditions as the Ministry may determine and upon the payment of a fee to be determined by decision of the Minister of Water Resources and Irrigation. The same fee is due when extending the said license.

An application for license, duly stamped, must be addressed to the competent general department with the following:

Three copies of a map on the scale of 1:2500 of the proposed work site, one of which is signed by a syndicated engineer.

The intended use of the work to be licensed.

A permanent security of up to 5% of the value of the work to be licensed provided that it is no less than LE 200 and no more than one million Egyptian Pounds.

An undertaking to pay the fee of use specified in Annex (1) attached hereto. An inspection fee of LE 100 is also paid when applying for the license.

The competent authority shall issue the license within one month from the date the required documents are completed.

Article (7):

For a license to be issued for constructing a siphon or an aqua-duct on irrigation or drainage streams and flood plains, an applicant must:

Submit to the competent engineer an application for license duly stamped.

Submit three copies of a map on the scale of 1:2500 of the proposed work site, one of which is signed by a syndicated engineer.

Pay an inspection fee of LE 100.

Deposit a permanent security of up to 20% of the value of the work to be licensed.

Submit the deeds of the land benefiting from the siphon or the aqua-duct and indicate the area of that land.

The competent authority shall issue the license within one month from the date the required documents are completed.

#### Article (8):

A license to set up a siphon or an aqua-duct on the irrigation and drainage streams and flood plains must contain all the technical conditions that must be complied with, particularly, the following:

The intended use of the work to be licensed.

The area of the land, which will benefit from the licensed work.

The continued use of the licensed work by the benefiting land even if the title to the land passes to another owner.

The expiry date of the license must be mentioned provided that it does not exceed 10 years.

When applying for renewing a license, the Ministry of Water Resources and Irrigation is entitled to introduce any modifications if in its opinion the circumstances under which the license has been issued changed.

The period of implementing the licensed work must be specified so that the license is deemed invalid if implementation is not completed within the specified period.

The fee of use of the licensed work must be specified as shown in the attached Annex (1).

#### Article (9):

For a license to construct a private bridge on an irrigation, drainage, or flood plain stream, an applicant must:

Submit to the competent engineer an application for license duly stamped.

Submit a map of the proposed work site on the scale of 1:25000 in 3 copies or a map's photograph, signed by a syndicated engineer.

Pay an inspection fee of LE 100.

Submit for revision and approval a design drawing and a bill of quantity of the bridge to be licensed.

Deposit a provisional security of up to 20% of the value of the work to be licensed.

The competent general department shall issue the license within one month from the date the required documents are completed.

The license must contain:

The kilometer location of the bridge to be licensed.

The basic engineering specifications of the bridge.

The technical conditions and specifications of the bridge.

An undertaking to continue to provide the service to the public.

Article (10):

Subject to the Prime Minister Decision No. 1333 of the year 2001 forming a committee made up of representatives from the relevant ministries authorized to issue the concerned bodies' approvals within the committee's terms of reference in respect of licensing works erected on the River Nile and isles, a competent general department may not grant a license to set up structures or works on the berms of the River Nile, isles or, coasts except with the approval of the competent authority referred to in the above-said Decision.

Article (11):

A licensee shall maintain and keep in good order and repair the licensed work in accordance with the license conditions and shall make such renovation or alteration as by the Ministry may deem necessary for the public interest at such time and in accordance with such specifications as the Ministry may determine, otherwise, the Ministry implements the same at the licensee's expense. Where a license is issued to a group of persons, they are held jointly bound in performance and liability.

A licensee may not, without written permission from the Ministry of Water Resources and Irrigation, rehabilitate or modify a licensed work.

Article (12):

Where a license condition is violated or negative effects have arisen due to the license and the licensee does not avoid or remove such violation or negative effects at such time as the competent general department may determine, the department which has issued the license may by decision cancel the license, or prevent the work from being used, or remove such work.

#### Article (13):

Where a license is not renewed in accordance with Article (6) and the Ministry has not decided to annex the licensed works to the State's property, the owners of such works shall remove them and restitute the public property within such period as may be determined by the Ministry of Water Resources and Irrigation, otherwise, the Ministry will do the same at the expense of the owners of these lands.

#### Article (14):

The private bridges and other hydraulic structures, which are constructed across the public irrigation canals or the public drains or the flood plains under prior license from the Ministry of Water Resources and Irrigation are, once they are constructed, deemed public property under the control of the Ministry.

## PART II

## PROTECTING THE RIGHTS OF USE OF THE SOURCES AND METHODS OF PRIVATE IRRIGATION AND DRAINAGE

### Article (15):

Landlords using a joint private *Mesqa* or any other joint method of irrigation or a joint groundwater well, or a joint reservoir, or a joint booster station, or a joint private drain may withdraw or drain water in proportion to the area of land owned by each landlord.

The competent engineer lays down the rotation schedules for the lands to which this system applies and the administration officers or water boards or water user associations apply such schedules under the supervision of the competent engineer. Complaints about the decisions of the competent engineer are submitted to the competent authority and the decision thereof on such complaints is final. The competent authority is authorized to settle any dispute that may arise from the way the said right of use is exercised.

### Article (16):

In accordance with the provisions of Articles (20) and (21) of the Water Resources Law, the landlords using private *Mesqas* or private drains (outside the tile drainage areas), joint methods of irrigation, joint ground wells, or joint reservoirs shall clear up and maintain the same

and remove any obstacles hindering the water flow therein, otherwise, the competent general department clears and maintains them at the cost of these landlords or instruct the respective water user association to do the same.

The actual costs of such clearing and maintenance are collected by administrative ways from the landlords in proportion to the land area each of them owns including the damages to be paid for each land occupied or damaged because of such works.

**Article (17):**

Where a landlord or a landholder or a leaseholder files a complaint with the competent general department because he is unduly prevented or obstructed from:

- using a private *Mesqa*, a private drain, a joint method of irrigation, a joint groundwater well, or a joint reservoir; or
  - entering any land for clearing or rehabilitating such *Mesqa*, drain, joint method of irrigation, joint ground well, or joint reservoir, the following steps are taken:
1. The claimant submits to the competent engineer a duly stamped complaint indicating the name, the land, and the area of the private *Mesqa* or the private drain or the joint ground well or the joint method of irrigation or the joint reservoir subject of the complaint.
  2. The complaint must contain the name of the area's Sheikh, mayor, chairman of the respective water user association, or land surveyor and the names of bordering neighbors or any person having servitudes rights to the private stream.
  3. If an inspection or investigation conducted by the competent engineer proves that the claimant's land benefited from the claimed right in the year prior to filing the complaint, the competent authority shall issue a provisional decision to enable the claimant and any other users to exercise the claimed right provided that the decision contains the rules and methods regulating the exercise of this right.

The decision must be issued within a maximum of fifteen days from the date the complaint accompanied by the supporting documents is filed with the competent authority. The decision is implemented at the respondent's cost and remains operative until the competent court issues a final decision on the involved rights.

**Article (18):**

Subject to Article (25) of the Water Resources Law, the following steps are taken where an application for constructing or using a private *Mesqa* or a private drain or a ground well, or a joint reservoir in the land of another person or where it is not possible



to reach an agreement with the owners of a certain *Mesqa* or a drain or a joint method of irrigation or a joint ground well or a joint reservoir:

1. The landlord submits to the competent authority a duly stamped application containing the land to be irrigated or drained and the reasons why it is not possible to irrigate or drain it.
2. A map on the scale of 1:2500 in 3 copies, one of which is signed by a syndicated engineer, indicating the location of the *Mesqa* or the drain or the joint method of irrigation, or the joint ground well, or the joint reservoir which is required to pass through the land of another person. The map must also indicate the land to be irrigated or drained.
3. The deeds of the lands to be irrigated or drained.
4. An undertaking by the applicant to pay the cost of the work to be constructed.
5. An undertaking by the applicant to pay the damages to be estimated for all the landlords through which the *Mesqa* or the drain or the joint method of irrigation or the joint ground well or the joint reservoir will pass.

The competent authority shall within two months from the date the required maps and documents are consummated decide on the application and may implement the decision by administrative ways.

### **PART III WATER DISTRIBUTION**

#### **Chapter 1 Management and Regulation Of Water Distribution**

#### **I. WATER USER ASSOCIATIONS ON PRIVATE IRRIGATION AND DRAINAGE NETWORKS**

##### **Article (19):**

Water User Associations shall be created in the new lands, the lands covered by the improved irrigation plans, and the old lands. There shall be an Association for each private *Mesqa*, private drain, and joint method of irrigation or drainage whether it being a booster station or a ground well or a pipe line or any other method of irrigation and drainage if the number of users exceed ten persons. The Water User Associations shall have corporate personality. For the purposes of these associations, a person who possesses a cultivated land, which relies in its irrigation or drainage on a private *Mesqa*, a private drain, or a joint method of irrigation or drainage is deemed a user.

##### **Article (20):**

The users of an Association shall select a special name derived from the name of the *Mesqa*, or the private water resource, or any other name selected by the General Meeting of the Association. The Association is registered in a special register for this purpose at the competent authority. The competent authority approves by decision the Association.

**Article (21):**

The Association's principal office shall be located at a place near the respective private *Mesqa* or water resource or booster station.

**Article (22):**

The purpose of an Association is to ensure the participation of water users in managing and maintaining the private *Mesqa*, private drain, joint method of irrigation, ground well, or reservoir so that fair distribution of water to the Association's members can be achieved.

**Article (23):**

An Association's General Meeting is made up of all the owners of the lands benefiting from the private *Mesqa*, joint method of irrigation, joint ground well, or joint reservoir. A landlord may delegate a landholder or a leaseholder to attend the General Meeting on his behalf.

**Article (24):**

The Association's General Meeting is authorized to:

1. Organize the participation of all water users and ensure that they make the best use of the water.
2. Approve the Association's balance sheet and the decisions of the Board of Directors, which financially and technically affect the management, operation, and maintenance activities.
3. Approve at the end of each financial year the annual report submitted by the Association's Board of Directors about the Association's activities.

**Article (25):**

The General Meeting is convened regularly each six (6) months at least and may hold extra-ordinary meetings. The call to the meeting in both cases is addressed by the Association's Chairman or upon the requisition of one third of the members possessing no less than 30% of the benefiting area or upon the request of the competent engineer. The notice of the meeting must be given by hand three days at least beforehand, except in high emergency, to the members or their legal representatives who must sign in acknowledgement of its receipt. The meeting is held in the Association's principal office. The meeting's agenda, time, and place must be communicated to the competent general department three days at least beforehand. A member of Association may attend the General Meeting in person or by an informal written proxy. A member may

not represent more than one member. The competent engineer attends the meeting as an observer and has no right to vote on the resolutions.

**Article (26):**

The General Meeting of an Association is valid only if attended by half of the members at least provided that the attending members possess lands representing no less than 50% of the area covered by the Association's jurisdiction. If the quorum is not present, the meeting is dissolved and a second meeting is convened within the next following week. The second meeting is valid regardless of the number of attendants and the proportion of the lands in their possession. The resolutions of the General Meeting are adopted by absolute majority of the members present.

**Article (27):**

The Association's Chairman prepares the minutes of the General Meetings. The minutes must contain the following:

- the time and place of the meeting;
- the number and names of the members present, absent with or without excuse;
- the proportion of lands in possession of the present members; and
- the number of votes each resolution obtained.

Copies of the minutes are communicated to the competent general department within one week at the most from the date the General Meeting is convened.

**Article (28):**

The Association's General Meeting selects in its first meeting and then on a biennial basis by direct election a Board of Directors made up of a minimum of three and a maximum of five members. The Board of Directors elects from among its members the Association's Chairman, Treasurer, and Secretary. The Secretary is responsible for the Association's administrative affairs. The competent engineer convenes the first meeting in accordance with the procedures contained under Article (25) hereof. The oldest member chairs the meeting. The youngest member assists the Chairman and acts as a secretary of the meeting.

**Article (29):**

The Board of Directors is authorized to:

1. Manage and run the private *Mesqa*, the private drain, the joint booster station, the joint ground well, or the joint reservoir.
2. Prepare schedules for the distribution of water among the water users.
3. Maintain and keep in good order and repair the components of the private *Mesqa*, the private drain, the joint booster station, the joint ground well, or the joint reservoir.
4. Formulate a system of incentives to conserve water; preserve its quality, grow crops generating high economic returns; or set the use of the modern water-saving technology.

5. Make the necessary replacements and rehabilitation; and control water discharge (flowing wells).
6. Determine the cost of irrigation per feddan (by hour, feddan, season, or crop) provided that it does not exceed the cost specified under Articles (84) and (85) of the Water Resources Law.
7. Conduct purchase or sale transactions or enter into agreements concerning the operation and maintenance works.
8. Obtain the best credits to develop the Association's objectives.
9. Dissolve the disputes among the Association's members.
10. Cooperate with the central, local, municipal, and executive authorities.
11. Open an account in the Association's name at a bank and deposit in this account the Association's funds.

**Article (30):**

The Association's Board of Directors meets on a monthly basis upon an invitation by its Chairman to carry on the authorities contained herein. The decisions of the Board of Directors are issued by the majority of votes present. Each user is entitled to obtain a copy of the Board's decisions. Copies of the Board's decisions are also sent to the competent engineer and the competent authority.

**Article (31):**

The Association's decisions concerning the rotation schedules must be unanimously voted. If there is no unanimous agreement and it is not possible for the Association to take a decision, the competent engineer upon a complaint by a member of the Association regulates the rotation schedules and his decision is binding. If the Association does not accept the engineer's decision, the issue is submitted to the competent authority whose decision is final and binding.

**Article (32):**

The Chairman of the Board of Directors assumes the following responsibilities:

1. Prepare the agenda of the General Meeting and take the necessary steps to call for and convene the meeting and implement its decisions.
2. Supervise the implementation of maintenance and clearing operations and organize irrigation and drainage.
3. Supervise the Association's administrative and financial activities. The Chairman acts as a link between the Association and the competent general departments; he receives the directions from the competent general departments and submits them to the General Meeting and supervises their implementation.
4. Prepare a rough budget for the Association containing the required spending aspects during the fiscal year and the proposed funding sources. He submits the budget for approval to the Board of Directors and the General Meeting.

5. Supervise the collection of the costs of operation, maintenance, replacement, and rehabilitation.
6. Represent the Association in signing all the contracts and agreements approved by the General Meeting or any person authorized by the General Meeting.
7. Sign with the Treasurer on the cheques and financial papers.
8. Receive the competent engineer's remarks concerning clearing up and maintaining the private *Mesqa*, the private drain, or the joint method of irrigation or the joint ground well. The Chairman then submits the remarks to the Board of Directors and takes the necessary procedures to implement them and notifies the concerned bodies.
9. Submit to the General Meeting an annual report on the Association's activity at the end of the Association's fiscal year.
10. Represent the Association before the judicial and administrative bodies.

The Chairman of the Board of Directors may voluntarily in case of urgency or emergency take the necessary steps to keep in good repair and maintain the *Mesqa*, or drain, or joint method of irrigation provided that these steps are submitted to the next following meeting.

**Article (33):**

The Association's Treasurer is authorized to:

1. Collect from the users against receipts the costs of irrigation, drainage, management, obligations, and guarding.
2. Deposit the Association's money with such bank or saving fund as the General Meeting may determine.
3. Make disbursements from the permanent and temporary loans in his custody in accordance with the General Meeting's resolutions.
4. Sign the vouchers and cheques from the Chairman of the Board of Directors.
5. Keep records, notes, and documents related to collection and cashing.
6. Prepare, in conjunction with the Chairman of the Board of Directors, the budget and special accounts.
7. Keep a special register, controlled by the General Meeting, in which the Association's revenues and expenditures are entered.

**Article (34):**

The Secretary's responsibilities are to:

1. Record the Board of Directors' activities and decisions into a special register.
2. Notify within one week at the most the competent engineer of the General Meetings and the Board of Directors' meetings.
3. Keep all the data related to the Association and its members and the lands in their possession.
4. Make out the minutes of the meetings of the General Meetings and the Board of Directors.
5. Carry out all the Association's administrative activities.

**Article (35):**

The competent engineer may object to any decision of the Association within a week from the date he is notified of such decision. The competent general manager also may object to the Association's decisions within two weeks from the date he is notified of such decisions.

**Article (36):**

The Association's financial resources are as follows:

1. The membership fees in proportion to the lands in possession of each member and in such value as the first General Meeting may determine.
2. Subscriptions and due obligations collected from the members to meet the costs of irrigation, drainage, maintenance, or operation in proportion to the lands each member possesses and the type of crop.
3. The interests of the Association's funds deposited with the bank or the saving fund.
4. Donations or grants from the members of the Association or any other person.  
The Association's funds are deemed public property.

**Article (37):**

The Association's fiscal year commences on 30 June and ends on 30 June each year. The first fiscal year, however, commences on the date in which the Association is registered and ends on 30 June of the next following year.

**Article (38):**

Where a member fails to pay his subscriptions or any of the obligations due on him by law or pursuant to this Regulation, the Association's Chairman may take the necessary

measures to protect the rights of the members of the Association against the violator including administrative attachment.

**Article (39):**

The Association is dissolved in the following cases:

1. If the basis of possession is amended so that number of users is less than six persons.
2. Upon achieving the purpose of the Association.

The Association is dissolved by decision from the competent authority.

**Article (40):**

Where the Association is dissolved, the General Meeting liquidates it in such rules as the General Meeting may determine.

**II. Water User Associations On Public Irrigation And Drainage Networks**

**Article (41):**

Where the Water Resources Department transfers parts of the irrigation and drainage methods (networks) to the users, there shall be established, in accordance with Articles 32, 33, and 34 of the Water Resources Law corporate Water User Associations at the level of the public irrigation and drainage networks. The Minister of Water Resources and Irrigation or whomever the Minister may delegate creates by decision such Association. The decision issued to this effect must contain the related procedures, responsibilities, and functions and must be published in the Official Gazette.

**III. Water Boards**

**Article (42):**

The Water Boards regulate the participation in the operation, management, maintenance, replacement, and rehabilitation of the irrigation and drainage networks.

**Article (43):**

Pursuant to the provisions of Articles (32), (33), and (34) of the Water Resources Law, there are hereby established corporate Water Boards within the jurisdiction of lands with specific geographical borders at the level of public water sources. The Minister of Water Resources and Irrigation or whomever the Minister delegate for this purpose creates by decision these Water Boards and such decisions shall be published in the Official Gazette.

**IV. WATER USE CONSERVATION**

**Article (44):**

In accordance with Article (86) of the Water Resources Law, a fee is charged against the use or exploitation of the water of the River Nile or canals or ground wells or reservoirs or self-flowing springs for purposes other than the licensed use for agriculture and drinking. The fees to be charged are as follows:

1. Five (5) piasters per cubic meter of water used for industrial purposes.
2. One (1) piaster per cubic meter of water used for generating electricity.
3. Fifty (50) piasters annually per ton for the river transport units as per their registered tonnage.
4. Tourist cruise units: a fixed annual fee to be decided in consultation with the Ministry of Tourism

**Article (45):**

A person may not, without license, dispose of water by draining it into a private or a public drain or into an uncultivated land or unlicensed land; or by using it in growing rice or any other water-consuming crop. An amount of Twenty (20) piasters is charged per cubic meter of water withdrawn or wasted by the land farmers in excess of the determined quantity.

**Article (46):**

Without prejudice to Article (73) of the Water Resources Law, a person who misuses a licensed method of irrigation of a new land to the effect that more quantities of water than those licensed for irrigating his land are withdrawn shall pay Twenty (20) piasters per cubic meter of the water withdrawn in excess during the violation period.

**Chapter 2**  
**Water-Lifting Machines**

**Article (47):**

To obtain a license to set up or operate a pump or a mechanically-driven equipment to lift or drain water, a person must:

1. Submit to the competent authority an application for license duly stamped.
2. Submit a map on the scale of 1:2500 in three (3) copies, one of which is signed by a syndicated engineer, describing the site of the pump or machine.



3. Pay an inspection fee of One Hundred Egyptian Pounds.
4. Submit the deed of the land benefiting from the pump; the documents of title to the machine; and a statement approved by the competent agricultural cooperative or the competent Water User Association indicating that the landlords in the respective command area agree to use the machine.
5. Submit a statement indicating the diameter of the pump; the general description of the machine and its horsepower, and the discharge of the pump.
6. Submit an undertaking by the applicant to obtain a new license when replacing the machine or the pump if such replacement leads to change of the discharge or change of the location. But, where ownership is transferred or a machine or a pump is replaced without change of the discharge, it is enough to make notation to this effect in the license certificate and the previous owner remains jointly liable with the new one for implementing the provisions of article (46) of the Water Resources Law until notation is made in the license certificate. Once notation of the change is made, the new landlord becomes liable.

**Article (48):**

In accordance with Article (47) of the Water Resources Law, a person who trades in water-lifting machines used for irrigation or drainage specified under Article (44) of the Water Resources Law, shall notify the Mechanical and Electrical Department, the Irrigation Department, and the Groundwater Sector of each sale or disposition of such machine within fifteen (15) days from the date of the disposition of the equipment.

The notice must contain the following:

1. The name and address of the store, which sold the pump or equipment.
2. The names, ID number (including the issuing body), and addresses of both the buyer and the owner of the machine.
3. The purpose behind buying the machine or the pump.
4. The location where the machine is to be operated.
5. The make, number, and manufacturer of the machine.
6. The diameter of the sucking pipe and delivery pipe; the horsepower of the machine, and the discharge of the pump or the equipment.

**Article (49):**

In accordance with Article (48) of the Water Resources Law, to obtain a license to:

- erect a water wheel or a scoop wheel or any other machine driven by cattle to lift water from the Nile or from a public or private stream of mutual use; or
- drain water into the Nile or public drains or the basins listed under Article (3) of the Water Resources Law,

a person must:

1. Submit to the competent authority an application for license duly stamped.
2. Submit a map on the scale of 1:2500 in three (3) copies, one of which is signed by a syndicated engineer, showing the site of the water wheel, scoop wheel, etc.
3. Pay an inspection fee of One Hundred Egyptian Pounds (L.E. 100) and a permanent security of Twenty percent (20%) of the work value provided that this security is not less than Two Hundred Egyptian Pounds (LE 200).
4. Submit the deed of the land benefiting from the water wheel or scoop wheel; or a statement approved by the competent agricultural cooperative or the competent Water User Association indicating the consent of the landlords in the respective area benefiting from the water wheel or scoop wheel.
5. Submit a general description of the water wheel, scoop wheel, etc. A license for such machines is not limited to a specific period.

## **PART IV DEVELOPING AND IMPROVING IRRIGATION AND DRAINAGE SYSTEMS**

### **Chapter 1 Developing Surface Irrigation Systems**

#### **I. Farmers' Management And Use Of The Improved Field Irrigation Systems In The Old Lands:**

##### **Article (50)**

In accordance with the provisions of Articles (56), (57), (58), (59), (60), and (61) of the Water Resources Law, the provisions of this chapter apply to the old lands, which the Minister of Water Resources and Irrigation decides to improve their irrigation methods. Improving the methods of irrigation in such lands is achieved by improving the private *Mesqas* therein, which is in turn achieved by adopting an improved method of irrigation. Examples of these methods are:

- Lifting the *Mesqas* and lining them with concrete.

Installing one or more pumps at the *Mesqas'* intakes.

Making openings towards each Marwa.

Pushing the *Mesqas'* water inside a pipeline buried under the earth surface and distributing the water by valves to each Marwa.

Any other technical method approved by the Ministry of Water Resources and Irrigation.

The Ministry of Water Resources and Irrigation may, after consulting the Ministry of Agriculture, implement the leveling works necessary for improving the targeted agricultural lands if the farmers fail to level their lands.

Article (51):

The farmers using an improved *Mesqa* shall establish a Water User Association to carry out the operation, maintenance, replacement, and rehabilitation works related to the *Mesqa* and associated pumps, valves, and pipelines. The Association's responsibilities are to:

regulate the operation times;

lay down the schedules of rotation among the farmers; and

determine the duties of the pump operator and the pump guard

in accordance with the provisions of Articles (19), (20), (21), (22), (23), (24), (25), (26), (27),

(28), (29), (30), (31), (32), (33), (34), (35), (36), (37), (38), and (39) hereof.

Article (52):

The Minister of Water Resources and Irrigation determines by decision upon the request of the competent general department for irrigation improvement the areas to be covered by the improved field irrigation method. The Ministry's competent engineer is entitled to implement immediately the improvement works for the *Mesqas*. Compensation is paid for the damaged crops in accordance with Article (114) of the Water Resources Law.

The users of a field irrigation improvement project (improved *Mesqas*) shall comply with the plans approved by the Ministry for implementing the improved field irrigation method. This includes, in particular:

The route designed for the improved *Mesqa* whether it being pipes embedded under the ground or lifted *Mesqas* with concrete lining, or any other improved method.

The sites of valves and openings.

The statements and plans modifying the openings.

The areas to be irrigated from each valve and opening.

Whatever may be necessary for these *Mesqas* including delivery sumps, feeding tanks, and pump shelters.

Any other works necessary for irrigation improvement.

The competent general manager is authorized to approve the plans of the improved field irrigation method.

Article (53):

The following steps are taken in the lands, in which the Ministry decides to improve irrigation systems:

The local competent engineer and his assistants including the *Mesqas* supervisors appointed in the respective area, conduct interviews with the farmers using the respective private *Mesqa*. During the interviews, the engineer and his assistants inform the farmers about the Ministry's decision to implement the improved field irrigation on the private *Mesqa*. They also explain the objectives and method of improvement; the returns to be gained by the farmers; the involved estimated costs to be borne per feddan; and the way of collecting these costs.

The competent engineer invites all the farmers in the area of the private *Mesqa* covered by the Ministry's improvement plan for a meeting at the *Mesqa* location or at the residence of one of the farmers in the *Mesqa*'s area, or at the mayor's residence. The place and time of the meeting must be announced. The oldest

member chairs the meeting. The youngest member assists the meeting chairman and acts as a secretary of the meeting.

The invitees form themselves into a General Meeting and elect by free voting in their first meeting a number of no less than five of the General Meeting's members to form the Board of Directors of the *Mesqa's* Association. The Board of Directors elects from among its members a Chairman, a Deputy Chairman, a Treasurer, and a Secretary.

The Association's Board of Directors chooses a name for the Association and applies to the competent department to register that name in a special register so that the Association obtains a certificate of registration and a registered number.

Article (54):

The costs of improvement of the private *Mesqas* are collected as follows:

The competent general departments prepares survey maps on an appropriate scale indicating the areas whose *Mesqas* have been improved and send these maps to the respective survey departments.

The competent general departments prepare closing accounting statements of the total cost of every implemented improvement project

including the compensation for the expropriated properties or damaged crops as a result of implementing the project plus 10% as administrative fee. The statements are then sent to the respective survey departments, which in turn send them to the concerned real-estate tax departments to take the necessary procedures for collection.

After the improved irrigation network is implemented, the competent general departments prepare the cost per feddan. All the actual costs are paid in annual installments not exceeding twenty (20) years. The cost of the pump(s) supplied or installed on the improved Mesqas and the cost of ground leveling is paid in annual installments within the three years following the installation.

The real-estate tax departments send monthly the amounts collected from the users to the Irrigation Improvement Sector with a list indicating the number, the date, and the collected amount.

## II. The Fund for *Mesqas* Improvement and Maintenance Projects

### Article (55):

There is hereby established at the Ministry of Water Resources and Irrigation a special fund called “Fund for *Mesqas* Improvement and Maintenance Projects”. The Fund is based in

Cairo and is subordinated to the Minister of Water Resources and Irrigation.

Article (56):

The purposes of the Fund for *Mesqas* Improvement and Maintenance Projects referred to under the previous article are to:

Finance the projects for improvement and maintenance of *Mesqas* and ground leveling.

Supervise the implementation of the above-mentioned projects.

Increase the public awareness about water use.

Article (57):

A Board of Directors, appointed by decision of the Minister of Water Resources and Irrigation, manages the affairs of the “Fund for *Mesqas* Improvement and Maintenance Projects”. The Board of Directors comprises the following:

- The Chairman of the Board of Directors (Chairman).

- The following members:

1. Deputy Chairman



2. Director of the Ministry of Water Resources and Irrigation's Fatwa Department at the State Council.

3. Representatives of the Ministry of Water Resources and Irrigation; namely:

Head of the Horizontal Expansion Sector.

Head of Irrigation Sector.

Head of the Central Department for Irrigation Development Projects.

Head of the Central Department for Horizontal Expansion Projects.

Director of the Institute for Research on Water Management and Irrigation Methods.

4. Two representatives of the Ministry of Agriculture; namely:

Head of the Reconstruction and Agricultural Projects Authority.

Head of the Central Department for Agricultural Credit and Cooperation.

5. Representatives, ranking not less than Central Department Director, of the Ministry of Finance, the Ministry of Planning, and the Ministry of International Cooperation.

6. Two public personalities to be selected by the Minister of Water Resources and Irrigation.

The Minister of Water Resources and Irrigation determines the remuneration and meeting attending allowance for the Board of Directors.

Article (58):

The Board of Directors of the Fund for *Mesqas* Improvement and Maintenance Projects is the controlling authority authorized to carry on its activities and conduct its affairs. The Fund may take such decisions as may be necessary to achieve the objectives for which it is created. The Fund is authorized, in particular, to:

1. Regulate the Fund's activities.
2. Approve the loans and implement the obligations arising therefrom.
3. Schedule the loan installments in view of the obligations contained in the agreements and contracts.
4. Issue the decisions and internal regulations containing the rules to be adopted by the Fund in managing its technical, administrative, and financial affairs.
5. Approve the Fund's annual draft budget and closing account.
6. Examine the periodic reports submitted on the Fund's activities and financial position.

The decisions of the Fund's Board of Directors are binding only after the Minister of Water Resources and Irrigation approves them.

**Article (59):**

The Board of Directors of the Fund for *Mesqas* Improvement and Maintenance Projects meets monthly at least upon a call by the Fund's Chairman or upon the request of the Minister of Water Resources and Irrigation. A notice to the meeting accompanied by the meeting's agenda must be addressed to the Fund's members, one week at least prior to the meeting date. In case of high urgency, the exact date may not be adhered to. The meeting is valid only if attended by the majority of its members.

The minutes and decisions of the Board's meetings are entered into a special register and are signed by the meeting Chairman and the Secretary. The Board's decisions are issued by majority vote of the members present. In case of equal vote, the Chairman has a casting vote. The Board's decisions are binding if the Minister of Water Resources and Irrigation does not object to them within two weeks from the date he is so notified.

**Article (60):**

The Board of Directors of the Fund for *Mesqas* Improvement and Maintenance Projects may establish Consultative Committees comprising experts or specialists from among or outside its members. The Board determines, by decision, the responsibilities of these Committees. The Board may establish from its members one or more committees and entrust to such committee(s) some of its responsibilities. The Board also may delegate some of its responsibilities to the Chairman or to a member of the Board. The Chairman may entrust to one or more members of the Board some of his authorities.

### **Article (61):**

The financial resources of the Fund for *Mesqas* Improvement and Maintenance Projects are as follows:

1. The appropriations allocated to the Fund in the State's general budget.
2. The proceeds of loans and donations.
3. The installments paid by the users to cover the cost of the development projects.
4. The amounts collected to cover the cost of clearing the *Mesqas* and drains in accordance with Article (20) and Article (34) of the Water Resources Law.
5. The returns of investment of the Fund's money.

The Fund's money is deemed public property governed by the provisions and rules concerning the public property control.

### **Article (62):**

The Fund for *Mesqas* Improvement and Maintenance Projects is allocated an autonomous budget as part of the Ministry of Water Resources and Irrigation's budget. The Fund's fiscal year commences from the beginning of the State's fiscal year and ends with its end. The Fund has an independent account at the Central Bank in which the Fund's

resources are deposited and the surplus of the account is carried forward from one year to another.

**Article (63):**

The Fund for *Mesqas* Improvement and Maintenance Projects may collect its entitlements from the other entities by administrative attachment in accordance with the law.

**Article (64):**

The administrative staff of the Fund for *Mesqas* Improvement and Maintenance Projects consists of such employees of the Irrigation Department as the Department's Head may delegate in agreement with the Chairman of the Fund's Board of Directors.

## **Chapter 2**

### **Improving Drainage Systems**

Improving, replacing, rehabilitating, and maintaining drainage systems:

**Article (65):**

Without prejudice to Articles (62), (63), (64), (65), (66), (67), and (68), the competent General Department shall prepare maps in eight

(8) copies on the scale of 1:2500 indicating the following:

a layout of the main and subsidiary drains or the open and tile field drains; and  
the lands of the drainage unit to be drained into an open or tile field drain or a series of such drains linked to one drain collector on the main drain.

The Minister of Water Resources and Irrigation or whomever the Minister may delegate approves these maps. The ownership of the properties necessary for implementing these projects is expropriated in accordance with the provisions of Law No. 10 of the year 1990 concerning the expropriation of the ownership of the properties necessary for the public interest. The Real-estate Tax Department is notified to lift the tax from these lands.

The committees formed by decision of the Minister of Water Resources and Irrigation No. 402/1996 takes the necessary procedures to:

make a list of the damaged cultivated areas as a result of the open and tile drainage projects; and  
pay the estimated compensation for these areas in accordance with the Compensation Rate Schedule to be issued by the Minister of Water Resources and Irrigation for the damaged agricultural crops, vegetables, and fruit trees as a result of implementing the drainage projects.

Where the amount of compensation is disputed, the issue is referred to the committee formed pursuant to Article 114 of the Water Resources Law.

**Article (66):**

The costs of implementing projects for open and tile drainage are collected from the users as follows:

The competent general department prepares survey maps on an appropriate scale indicating the areas provided with the open and tile drainage network and sends these maps to the competent survey departments.

The competent general department prepares closing account statements of the total cost of each implemented project for open and tile drainage. The cost includes the amount of compensation for the properties expropriated within the context of the project and the damaged crops plus 10% as administrative fee. All these statements are sent to the survey departments, which in turn determine the feddan cost and send the statements to the competent real-estate tax departments to take the necessary procedures to collect these costs.

The real-estate tax departments send monthly the amounts collected from the users to the General Authority for Drainage Projects with a list indicating the number, date, and value of the

receipt of the collected amount for each collector area.

The Fund for Drainage System Improvement, Replacement, Rehabilitation, and Maintenance:

Article (67):

In accordance with Article (69) of the Water Resources Law, a special fund called “The Fund for Drainage System Improvement, Replacement, Rehabilitation, and Maintenance” is established. The principal office of the Fund is in Cairo. The Fund is affiliated to the Minister of Water Resources and Irrigation.

Article (68):

The purpose of the Fund for Drainage System Improvement, Replacement, Rehabilitation, and Maintenance referred to under the previous article is to:

Provide the necessary funding to implement, improve, replace, rehabilitate, and maintain the tile drainage projects.

Supervise the implementation of the above-said projects.



Increase awareness about the preservation of open and tile drainage networks to achieve the intended increase of crop productivity.

Article (69):

The Minister of Water Resources and Irrigation establishes and determines by decision:

the functions of the Fund for Drainage System Improvement, Replacement, Rehabilitation, and Maintenance; and

the remuneration and meeting attending allowance for the Chairman and the members of the Board of Directors.

Article (70):

The Fund for Drainage System Improvement, Replacement, Rehabilitation, and Maintenance is the controlling authority authorized to carry out its activities and conduct its affairs. The Fund may take such decisions as may be necessary to achieve the objectives for which it is created. The Fund is authorized, in particular, to:

Regulate the Fund's activities.

Approve the loans and implement the obligations arising therefrom.

Schedule the loan installments within the limits of the obligations contained in the agreements and contracts.

Issue the decisions and internal regulations containing the rules to be adopted by the Fund.

Approve the Fund's annual draft budget and closing account.

Examine the periodic reports submitted on the Fund's activities and financial position.

The decisions of the Fund's Board of Directors are binding only after the Minister of Water Resources and Irrigation approves them.

Article (71):

The financial resources of the Fund for Drainage System Improvement, Replacement, Rehabilitation, and Maintenance are as follows:

The appropriations allocated to the Fund in the State's general budget.

The proceeds of loans and donations.

The installments paid by the users to cover the cost of the tile drainage projects including the installments for clearing and maintenance.

The returns of investment of the Fund's money.

The Fund's money is deemed public property governed by the provisions and rules concerning the public property control.

Article (72):

The Fund for Drainage System Improvement, Replacement, Rehabilitation, and Maintenance has an independent budget as part of the budget of the General Authority for Drainage Projects. The Fund's fiscal year commences from the beginning of the State's fiscal year and ends with its end. The Fund has an independent account at a public sector bank in which the Fund's resources are deposited and the surplus of the account is carried forward from one year to another.

Article (73):

The Fund for Drainage System Improvement, Replacement, Rehabilitation, and Maintenance may collect its entitlements from the other entities by administrative attachment in accordance with the law.

Article (74):

The administrative staff of the Fund for Drainage System Improvement, Replacement, Rehabilitation, and Maintenance consists of such employees of the General Authority for Tile Drainage Projects as the Authority's Director may delegate.

## **PART V**

### **IRRIGATING THE NEW LANDS**

#### **Article (75):**

Without prejudice to Articles (70), (71), (72), (73), and (74) of the Water Resources Law, an application for a license to irrigate a new land is submitted to the competent general department. The application must contain the following details:

The name, capacity, and residence of the applicant.

An evidence that the land subject of the license is in the applicant's possession.

The area of the land to be irrigated and its location on maps on an appropriate drawing scale signed by a syndicated engineer.

A complete classification of the soil by a specialized body.

The suggested source of water for irrigation.

The suggested modern method of irrigation.

The suggested agricultural cycle.

#### **Article (76):**

The competent general department examines the license's application and documents, issues, and notifies the applicant of, its decision within a maximum of two months from the date the complete documents are submitted. If the

competent general department approves the application for the license of irrigation, it must indicate in its decision the method of irrigation to be adopted.

**Article (77):**

A licensee shall, before he receives the license of irrigation, submit a written statement in which he:

Indicates that he is fully aware of the necessary requirements and method of implementation of the licensed method of irrigation;

Undertakes to implement the improved irrigation networks inside the licensed lands within the period he specifies in his statement and in accordance with the technical specifications determined by the Ministry; and

Undertakes to operate, maintain, and repair any breakdown of the licensed method of irrigation.

**Article (78):**

The competent general department shall deliver the license to the licensee within one week from the date the improved irrigation network is implemented, inspected, and approved if it is ostensibly proved to be in good condition. The licensee, however, remains liable for the network's efficient operation and any latent defects.

**Article (79):**

Where, after the implementation of an improved irrigation network, a licensee is in breach of the license conditions, or fails to do the necessary maintenance or replacement, or does not adhere to the method of irrigation specified in the license, the competent engineer:

makes a report in which he establishes the breach, and

notifies the person in breach, within a week at the most from the date the engineer makes his report, to remove the reasons of the breach and comply with the license conditions within a month at the most from the date he is so notified.

The competent general department may extend this deadline if the person in breach submits justified excuses.

Article (80):

If the licensee fails to implement the improved irrigation network within the period specified in his statement under Article (77), the competent general department may extend this period depending on the reasons submitted by the licensee, which justify his failure to implement the network in time. Where the original period and the extension thereof expire without implementing the network, the competent general department makes a report in which it proves the situation, describes the breach, and indicate the procedures that have been taken in

connection therewith. In this case, the competent general department cancels the license.

#### Article (81):

A landlord is bound to maintain the licensed improved irrigation network and repair any caused damage. The competent engineer notifies the landlord to implement the maintenance or repair within such period as the competent engineer may determine. Where the landlord fails to make the maintenance or repair and does not request a new deadline to implement the required maintenance and repair, the competent general department may cancel the license.

#### Article (82):

Where an irrigation source is licensed, the competent general department may - within three months from the date the landlord, Water User Association, or cooperative is so notified by registered letter, return receipt acknowledged – notify the authority, which has issued the decision allotting the land in question, to consider canceling the allotment and dispose of the land in such way that would achieve the purpose of the allotment and capitalize on the national infrastructure implemented in the new lands.

## **PART VI GROUNDWATER**

Construction, replacement, rehabilitation, and maintenance of groundwater wells:

Article (83):

Without prejudice to the provisions of Articles (76), (77), (78) and (79) of the Water Resources Law, the term “groundwater reservoir” means:

- a. A reservoir formed from sediments in the Delta and the Nile valley, which are the natural extension of the water-carrying layers connected to the River Nile, its branches and water streams. The borders of reservoirs in Delta are:
  - The Mediterranean sea to the north,
  - Suez canal to the east,
  - Al-Nattroun Valley depression, Al-Faregh Valley, and Cairo–Alexandria desert high way to the west, and
  - Suez highway to the south.

The borders of the reservoirs in Upper Egypt are:

- the extension of the water-carrying layers (for about five kilometers to the east and the west outside the cultivated lands) along the Nile Valley to the borders with Sudan; and
  - The extension of the water-carrying layers to the east and the west to the limestone heights.
- b. A groundwater reservoir in a desert land unmentioned under clause (a) above.



- c. A Valley reservoir formed as a result of water erosion in flood plains.
- d. A coastal reservoir (which may have been formed from valley sediments) along the seacoasts.

**Article (84):**

An application to obtain license to dig wells in the Delta and Nile Valley lands specified under Article clause (a) of the previous article is submitted to the competent engineer within whose jurisdiction the well lie. The application must be duly stamped and accompanied by the following details and documents:

1. Applicant's name, nationality, and residence.
2. The location of the suggested well on a survey map in (3) copies on the scale of 1:2500.
3. A copy of all the studies, analyses and designs concerning the well, if any.
4. The purpose for which the well water is intended to be used.
5. The area required to be irrigated if the purpose of the well is irrigation.
6. The deed of the land benefiting from the well or the decision allotting the lands to be irrigated.
7. Paying a temporary security of Two Hundred Egyptian Pounds (LE 200).
8. The owner of the well shall notify the competent authority, within whose jurisdiction the well lies, of the results of analyzing the layers and water of the licensed well after the digging operations are completed. If the owner of the well fails to do so, the temporary security mentioned under the previous clause is not refunded to him.

**Article (85):**

The competent authority examines the application for license to determine the site need for groundwater, the required uses of this water, and the suitable way to fulfill the suggested needs.

**Article (86):**

The competent general department submits to the Groundwater Sector the application for license and its attachments with the department's opinion based on the conducted study. The Groundwater Sector conducts detailed study of the project, determines the suitability of the location for exploiting groundwater, fixes the discharges available for

use, and lays down the applicable conditions and technical specifications.

A reply must be sent to the applicant within two months at the most from the date the application duly stamped is filed. The applicant may be denied the license, or granted a final license or a temporary permission to dig, at his own cost and risk, a trial well and conduct further studies on the well. The applicant shall submit a copy of all the well-related information to the competent engineer so that the competent authority can issue the final license.

The license must contain the following details:

1. The license number.
2. The licensee's name and address.
3. The location of the licensed well.
4. The intended use of the well.
5. The well's depth.
6. The area of the land to be irrigated, if the purpose of the well is irrigation.
7. The design of the well, the kind of the pump licensed to be used and its diameter, and the quantity of water licensed to be used from the well (m<sup>3</sup>/day).
8. The validity period of the license.

**Article (87):**

The period of the license may not be more than three years. An application to renew the license must be submitted two months at least prior to its expiry date. The license automatically expires at its expiry date if not renewed.

**Article (88):**

Where the applicant applies for a license to dig a groundwater well in a desert land under the provisions of Law No. 143 of the year 1981 provided under Article (83) of this Regulation, clauses from (b) through (d), the application must include:

- in case of an irrigation well, the approval of the General Authority for Reconstruction and Agricultural Development Projects to lease the land.
- In case of an industrial well, the approval of the Investment Authority or the Ministry of Industry, and the land's allotment decision.

**Article (89):**

The Ministry of Water Resources and Irrigation's Groundwater Sector examines the application in terms of the potentiality of the groundwater and whether it is suitable for intended purpose. The Sector may conduct a detailed study or hire a specialized institution to do the same at the expense of the beneficiary to ensure sustained development and the safety of the existing wells.

Article (90):

The Head of the Groundwater Sector of the Ministry of Water Resources and Irrigation refers the application for the license to the Research Institution for Groundwater. The competent authority issues the requested license subject to the approval of the General Authority for Reconstruction and Agricultural Development Projects and the Research Institution for Groundwater.

Article (91):

Where an application to obtain a license is refused, the Ministry of Water Resources and Irrigation shall notify the applicant, by registered letter, of the reasons of refusal within two months from the date it receives the application from the General Authority for the Reconstruction and Agricultural Development Projects and shall send a copy of that letter to the General Authority for Reconstruction and

Agricultural Development Projects or any other party. The applicant is entitled to make a complain within thirty days from the day he is notified of the refusal.

Article (92):

The complaint is submitted to the Ministry of Water Resources and Irrigation, which examines and decides on the complaint within thirty days from the day it receives the complaint. The Ministry's decision is final.

Article (93):

Copies of the license must be sent to:

The Research Institution for Groundwater,  
The General Authority for the Reconstruction  
and Agricultural  
Development Projects,  
The Ministry of Industry,  
The Ministry of Housing, or  
Any other party, as the case may be.

Article (94):

Where a license is lost or damaged, the competent general department that has issued the license must be immediately so notified to obtain a license in lieu of the lost or damaged one.

The Fund for desert groundwater well construction, replacement, rehabilitation, and maintenance:

Article (95):

In accordance with Article (83) of the Water Resources Law, a special fund called “The Fund for Desert Groundwater Well Construction, Replacement, Rehabilitation, and Maintenance” is established. The principal office of the Fund is in Cairo. The Fund is affiliated to the Minister of Water Resources and Irrigation.

Article (96):

The purpose of the Fund for Desert Groundwater Well Construction, Replacement, Rehabilitation, and Maintenance” mentioned under the previous article is to:

Provide the necessary funding to implement, maintain, replace, and rehabilitate the groundwater wells.

Supervise the implementation of the groundwater wells.

Increase awareness about the preservation of groundwater wells and protect them from pollution to be able to achieve their purposes.

Article (97):

The Minister of Water Resources and Irrigation establishes and determines by decision the Board of Directors of the Fund for Desert Groundwater Well Construction, Replacement, Rehabilitation, and Maintenance”. The decision also determines the remuneration and meeting attendance allowance of the Chairman and the members of the Board of Directors.

Article (98):

The Fund for Desert Groundwater Well Construction, Maintenance, Replacement, and Rehabilitation is the controlling authority authorized to carry out its activities and conduct its affairs. The Fund may take such decisions as may be necessary to achieve the objectives for which it is created. The Fund is authorized, in particular, to:

Regulate the Fund’s activities.

Approve the loans and implement the obligations arising therefrom.

Schedule the loan installments within the limits of the obligations contained in the agreements and contracts.

Issue the decisions and internal regulations containing the rules to be adopted by the Fund.

Approve the Fund's annual draft budget and closing account.

Examine the periodic reports submitted on the Fund's activity and financial position.

The decisions of the Fund's Board of Directors are binding subject to the approval of the Minister of Water Resources and Irrigation.

Article (99):

The financial resources of the Fund for Desert Groundwater Well Construction, Maintenance, Replacement, and Rehabilitation are as follows:

The appropriations allocated to the Fund in the State's general budget.

The proceeds of loans and donations accepted by the Board of Directors and approved by the competent authorities.

The installments paid by the users of the groundwater wells.

The proceeds of the issuance fees of the groundwater licenses provided in the Law, the fees of the licenses' renewal, and the fines sentenced against the violators.

The returns of investment of the Fund's money.



The Fund's money is deemed public property governed by the provisions and rules concerning the public property control.

Article (100):

The Fund for Desert Groundwater Well Construction, Maintenance, Replacement, and Rehabilitation may collect its entitlements from the other entities by administrative attachment in accordance with the law.

Article (101):

The administrative staff of the Fund for Desert Groundwater Well Construction, Maintenance, Replacement, and Rehabilitation consists of such employees of the Groundwater Sector as the Sector's Director may delegate.

Article (102):

A special account is opened in the Fund's name at the Egyptian Central Bank subject to the approval of the Ministry of Finance. Disbursement from the account is made by checks signed by the Head of the Fund's Board of Directors or its Secretary and countersigned by the representative of the Ministry of Finance; the director or deputy director of Irrigation Department accounts, as a second signature.

**PART VII**  
**PROTECTION OF WATER RESOURCES,**  
**HYDRAULIC**  
**STRUCTURES, NAVIGATION AND**  
**SHORES**

Chapter 1  
Protection of Water Resources

Article (103):

The Executive Regulation of Law No. 48 of the year 1982 as amended concerning the protection of the River Nile and waterways from pollution is deemed an integral part of this Regulation.

Article (104):

The application to obtain a license to drain into water streams or into groundwater is submitted to the competent general department. The application must be duly stamped and accompanied by the following details and documents:

The applicant's name and address.

The kilometer location on the water stream suggested to be used for drainage, or the location of drainage into the groundwater on a survey map, in 3 copies, on the scale of 1:2500.

A copy of all the studies and analyses of the water intended to be drained and its quantity.

The approval of the Environment Affairs Agency and the Ministry of Health on draining such water into the water streams or groundwater.

Paying an inspection fee of LE 100.

Paying a provisional security of LE 1000

Paying 10 piasters per cubic meter of treated water drained by the factories into the water streams.

Article (105):

An application to obtain a license to use the water of a drain for the purpose of land irrigation is submitted to the competent general manager. The application must be duly stamped and accompanied by the following details and documents:

Applicant's name and address.

A survey map on the scale of 1:2500 in 3 copies indicating the drain whose water is to be used, the kilometer location at which the land will be fed with water, and the area to be irrigated from the drainage water.

The deed of the land to be irrigated from the drain.

The crops to be cultivated.

A copy of all the studies, analyses, and designs of the project from a specialist engineering office indicating the following:

The soil type;

An analysis of the drainage water,

The type of crops and the degree to which each crop can resist saltiness,

The way in which the drainage water will be used for irrigation (i.e. directly or after mixing it with fresh water);

The name of the fresh water stream with which the drain water will be mixed and the mixing percentage. The details contained in Annex (2) attached hereto concerning the proportions of water as per its suitability for irrigation must be used as a guide.

an amount of LE 100.00 as inspection fee; and

an amount of LE 1000.00 as provisional security.

Article (106):

The competent general department examines the application for license in terms of the following:

the efficiency of the irrigation and drainage networks at the proposed location;  
the suitable discharge to meet the needs of the targeted area; and  
any other projects determined or planned for the targeted area.

The competent general department shall then refer the application to the Irrigation Sector Head.

#### Article (107):

The Irrigation Sector Head consults the concerned departments of the Ministry of Water Resources and Irrigation, the Ministry of Agriculture, the Ministry of Environment, and the Ministry of Health before referring the application to the Horizontal Expansion Projects Sector to take the necessary steps to conduct a detailed study.

#### Article (108):

After consulting the concerned departments of the Ministry of Water Resources and Irrigation, the Ministry of Agriculture, the Ministry of Environmental Affairs, and the Ministry of Health, the Horizontal Expansion Projects Sector prepares an all-embracing memorandum containing the results of the examination of the application for license. The memorandum is then referred, in case of the old lands, to the Irrigation Sector, and, in case of the new lands,

to the joint coordinating committee for land reclamation. The memorandum must indicate the method of irrigation to be adopted, the water duty, the irrigation source, the necessary quantity of water, and the proposed percentage of mixing.

#### Article (109):

The competent general department shall after completing the above-said procedures issue the license. The license must contain the following details:

License fee.

Licensee's name and address.

The location of the area to be fed with the drainage water.

The name of the drain whose water is to be used and the location of feeding.

The water drain licensed to be used and the periods of its use throughout the year.

The percentage of mixing with the fresh water, if any.

The validity period of the license.

#### Article (110):

The period of the license may not be more than three years. An application to renew the license must be submitted two months at least prior to its expiry date. The license automatically expires at its expiry date if not renewed.

#### Article (111):

Where the competent general department does not approve an application for license, it shall within six months from the date the application is submitted notify by registered mail the applicant of the reasons of refusal. The applicant is entitled to complain to the Ministry of Water Resources and Irrigation within one month from the date he is notified of the refusal. The Ministry shall within thirty days from receiving the complaint decide on the complaint and its decision is final.

#### Article (112):

A copy of the license is sent to all the concerned sectors and authorities including:

The Drainage Research Institute.

The General Authority for Reconstruction and Agricultural Development Projects.

The Egyptian Public Authority for Drainage Projects.

#### Chapter 2

Protection of Hydraulic structures and Navigation

#### Article (113):

The term “Hydraulic structure” means any industrial work erected in or on:

the River Nile stream or its embankments;  
public canals or drains;  
flood plains;  
Nasser Lake shores; or  
groundwater wells  
by the Ministry of Water Resources and  
Irrigation or whose title has been transmitted by  
operation of law to the Ministry.

Article (114):

The term “damage” industrial works under  
Article (93-10) of the Water Resources Law  
means any willful or unintentional damage  
caused to a hydraulic structure or any act that  
would endanger a hydraulic structure.

### Chapter 3 Management and Protection of Shores

Article (115):

Without prejudice to Articles (98), (99), and  
(100) of the Water Resources Law, the  
engineers of the Egyptian General Authority for  
Shore Protection enjoying the capacity of law  
enforcement officers may enter the lands  
referred to and the structures erected thereon to  
inspect the implemented works. If they find that  
violations have been or are being committed,  
they may suspend such works by administrative  
way at the violator’s cost, seize the machines,  
tools and equipment used in committing the



violation, and confiscate such machines, tools and equipment if the violator is found guilty.

Article (116):

To obtain the approval referred to under Articles (98), (99), and (100) of the Water Resources Law, a duly stamped application must be submitted to the competent general department. The application must be accompanied by the following:

A survey map on the scale of 1:2500 or 1:5000 in 3 copies and an engineering drawing of a map indicating the borders of the land owned to the applicant and the location and stretches of the work to be erected. The map must be signed by a syndicated engineer.

The deed of the lands on which the structures subject of the license are to be erected where these lands are privately owned or, the decision of allotment in other cases.

A description of the height of the structures to be approved.

A detailed design drawing and an estimated measurement of the structures to be approved.

A statement of the basic engineering specifications and the technical specifications and conditions concerning the structures to be approved.

An undertaking by the applicant to comply with such conditions and technical specifications of the structures to be approved as may be determined by the Egyptian Public Authority for Shore Protection.

Paying an inspection fee of One Hundred Egyptian Pounds (LE 100).

The maritime studies in case of constructing works on the shoreline.

An undertaking to obtain the approvals of the other concerned bodies (municipalities, Ministry of Environmental Affairs, etc.).

The Head of the Egyptian Public Authority for Shore Protection Authority shall issue the approval within two months from the date the required documents are completed and shall notify the applicant of the approval once it is issued. The engineers of the competent general departments monitor the implementation of the conditions of the approval.

Where an approval of the structures referred to is denied, the applicant is notified by a registered letter, return receipt acknowledged, of the reasons for refusal within two months from the date the application is filed.

## **PART VIII**

### **GENERAL AND CLOSING PROVISIONS**

## Restitution Fund:

### Article (117):

In accordance with Article (115) of Water Resources Law, the Restitution Fund, created under Article (103) of the Law No. 12 of 1984 concerning irrigation and drainage before that Law was repealed, shall continue its activities.

### Article (118):

The Minister of Water Resources and Irrigation establishes and determines by decision the Board of Directors of the Restitution Fund. The decision also determines the remuneration and meeting attendance allowance of the Chairman and the members of the Board of Directors.

### Article (119):

The Restitution Fund is the controlling authority authorized to carry out its activities and conduct its affairs. The Fund may take such decisions as may be necessary to achieve the objectives for which it is created. The Fund is authorized, in particular, to:

Lay down the Fund's policy and direct its activities in accordance with the stated plan.

Regulate the Fund's activities and supervise its affairs.

Approve the Fund's annual draft budget and closing account.

Examine the periodic reports submitted on the Fund's activity and financial position.

The decisions of the Fund's Board of Directors are binding only after the approval of the Minister of Water Resources and Irrigation.

Article (120):

The financial resources of the Fund are as follows:

1. The amounts collected in accordance with the provisions of the Water Resources Law which are as follows:

The proceeds of the issuance fees of the licenses referred to in the Law and the renewal fees thereof.

The proceeds of the fines sentenced against the violators.

The restitution amounts paid by the violators.

The permanent securities collected for licensing certain works inside the installations pertaining to the water resources.

The grants, donations, and endowments consistent with the purpose of the Fund and accepted by the Board of Directors and approved by the competent authorities.

#### Article (121)

A special account is opened in the name of the Restitution Fund at the Egyptian Central Bank after the approval of Ministry of Finance. Disbursement from the account is made by checks signed by the Head of the Fund's Board of Directors or its Secretary, and countersigned by the representative of the Ministry of Finance; the director or deputy director of Irrigation Department.

#### Article (122):

The Fund's fiscal year commences from the beginning of the State's fiscal year and ends with its end.

Guiding sample forms on the services offered by the Ministry, Annex (1) on rates of use of lands, and Annex (2) on the guidelines for the use of drainage water:

#### Article (123):

The Ministry's guiding sample forms, the manual of application forms, and the documents to be submitted for the required service shall be used in all the Ministry's activities.

#### Article (124):

Annex No. (1) attached hereto concerning the fees of use of the lands owned to the State pertaining to Water Resources is deemed an integral part of this Regulation.

Article (125):

Annex No. (2) attached hereto concerning the guidelines for the use of drainage water for irrigation purposes is deemed an integral part of this regulation.

**APPENDIX D**

**PROPOSED EXECUTIVE REGULATION  
FOR REVISED LAW 12/1984**

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**THE UNIVERSITY OF CHICAGO**

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THE UNIVERSITY OF CHICAGO - 2

2025年12月15日 星期一 晴

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THESE RECHERCHES SONT LE FRUIT D'UN TRAVAIL FAIT EN COMMUN AVEC MON COLLÈGE, M. L. J. B. -

**The ?? ???? ?u P???? ?u ? ??? ?????? ? ???? ???? ???? ???? ?**

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THESE **THÈSES** **DE** **DIPLOME**

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 2. **Methodology**
 3. **Results**
 4. **Discussion**
 5. **Conclusion**
 6. **References**
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 8. **Notes**
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 11. **Supplementary Materials**
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 13. **Keywords**
 14. **Subject Headings**
 15. **Correspondence**
 16. **Conflict of Interest**
 17. **Author Contributions**
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1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities related to the project. It emphasizes the need for transparency and accountability in financial reporting.

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1. **Introduction** 2. **Methodology** 3. **Results** 4. **Discussion** 5. **Conclusion**

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1. **האם יש להבחין בין סוגי פגיעות שונים?**
 2. **האם יש להבחין בין סוגי פגיעות שונים?**

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3. **האם יש להבחין בין סוגי פגיעות שונים?**
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APPENDIX E
STAKEHOLDERS' WORKSHOP
REPORT

1. Purpose of the Workshop

The main objectives of the workshop were to:

- Review and discuss draft executive regulation of Law 12/1984.
- Solicit MWRI key officials feedback on the proposed executive regulation.
- Identify other initiatives, which might contribute to improve water resources management.

The workshop was held in the Renaissance Hotel, Alexandria on October 4-6, 2001. A total of 22 stakeholders participated in the workshop. Names and institutions of participants are enclosed. The meeting proceeded according to the Agenda enclosed. Eng. Gamil Mahmoud, Head of WPAU, in his opening remarks, talked about the benchmark activities and the need to lay down an executive regulation for the amended Law 12/1984 on Water Resources. He emphasized the importance of the Stakeholders' comments on the different articles of the proposed executive regulation. Eng. Ahmed Maher, EPIQ short term consultant and Dr. Mohamed Badran, legal advisor explained the purpose of this regulation which can be summarized as follows:

- Limit the broad meanings of certain general terms in the law;
- Explain the vague provisions in the law;
- Lay down the procedures necessary for obtaining the services provided in the law; and
- Determining the levels of management authorized to issue the necessary decisions to implement the law.

2. Workshop Discussions

Following presentation and strategy of proposed regulation, there ensued a full day roundtable discussions and information sharing. MWRI representatives discussed articles of the regulation that are relevant to their authorities. The major issues raised during the stakeholders' discussions on the proposed executive regulation are:

- The definitions of water resources, water uses and public properties pertaining to water resources (articles 2 and 3)
- The roles and responsibilities of Water Users Associations, Branch Canal Water Users Associations (articles 19-43)
- The different funds created by the modified Law 12/1984 and whether they should be combined together.

These funds are:

- New fund for irrigation improvement for improved mesqas (articles 55-64)
- New fund for improvement, rehabilitation, renovation and maintenance of the drainage system (articles 67-74)
- New fund for construction, maintenance and maintenance groundwater wells (articles 95-102)
- Restitution Fund (articles 117-122)

- More strict rules for licensees who do not abide by the law concerning the construction of improved irrigation systems in new lands (part 5)
- Addition of some articles dealing with the protection of hydraulic structures and navigation under part 7.
- Clarifying the difference between stakeholders participation and irrigation management transfer.

Conclusions

- The proposed executive regulation of modified Law 12/ 1984 covers:
 - Land expansion in desert areas.
 - Use of groundwater in the Nile Valley and the deserts.
 - Stakeholders' involvement in water allocation, planning and management.
 - Role of private sector.
 - Legal basis for all farmer organizations in old and new lands.
 - Water charges, cost recovery and cost sharing.
 - Development of new lands.
 - Integrated water management.
- Stakeholders' Workshop met its objective in soliciting stakeholders' feedback on the proposed Law 12/ 1984 executive regulation.

List of Participants:

MWRI

- Eng. Mohamed Elamir Osman Head of Irrigation
Dept.
- Eng. Ali Morsi MWRI Advisor
- Eng. Abdel Monem Shalaby Chairman,
Egyptian Public Authority for
Drainage Projects
- Eng. Maher Khodary Director, Minister
Office Affairs
- Eng. Ramsis Bakhoum Director, Irrigation
Improvement Sector
- Eng. Hussein Abdel Rahman Head, Mechanical
and Electrical Dept.
- Eng. Nabil Fawzi Head, Reservoirs
and Grand Barrages
Sector
- Eng. Hussein Elwan Head, Irrigation
Sector
- Eng. Abdel Hakim Hassan Head, Horizontal
Expansion and Project
- Eng. Yehia Abdel Aziz Water Boards
Specialist, MWRI
- Eng. Dia El-Qousy Vice Chairman,
National Water Research
Center
- Eng. Salah El-Shazali General Director,
Minister Office Affairs

WPAU/EPIQ

- Eng. Gamil Mahmoud Head of WPAU

- Eng. Sarwat Fahmy
Expert, WPAU Water Planning
- Eng. Nasser Ezzat
Management Expert, WPAU Water
- Dr. Ibrahim El-Assiouti
Specialist, EPIQ Water Resources
- Eng. Ahmed Maher
Engineering Consultant, EPIQ Irrigation
- Dr. Mohamed Badran
EPIQ Legal Advisor,
- Eng. Amira Diasty
WPAU Engineer
- Eng. Moamen El-Sharkawi Engineer WPAU
- Mr. Mohamoud Sabra Legal Translator

STAKEHOLDERS WORKSHOP AGENDA

REVISION OF LAW 12/1984

(Alexandria 4-6 October 2001)

Thursday, October 4

- Arrival

Friday, October 5

- 9:00 – 9:30
- 9:30 – 11:30

- 11:30 – 14:00
- 14:00 – 16:30

Saturday, October 6

- 9:00 – 11:30
- 11:30 – 12:00
- 12:00 – 13:00
- 13:00 – 13:30
- 13:30

Opening Session

Proposed Executive Regulations

* Eng. Ahmed Maher

* Dr. Mohamed Badran

Prayer and Lunch

Roundtable Discussions

Roundtable Discussions

Break

Presentation of Roundtable Conclusions

Concluding Remarks

Departure